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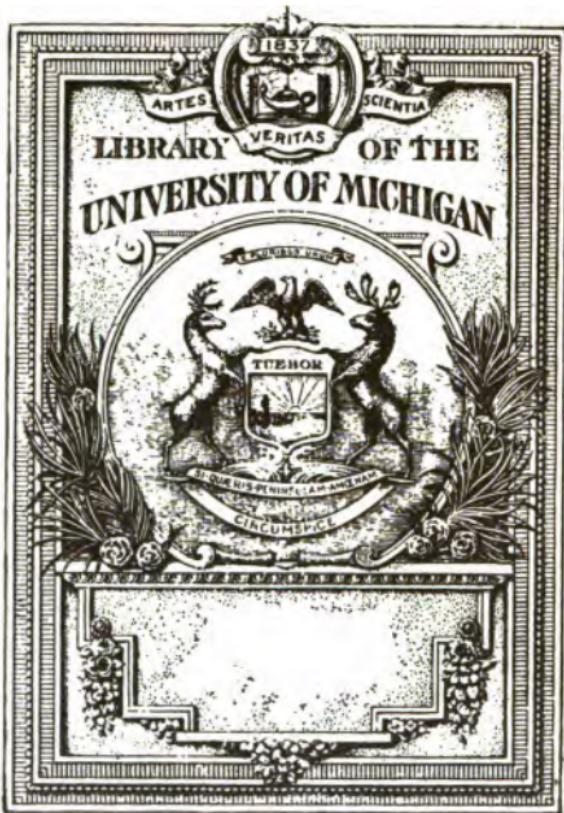
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THE TOWN GARDEN:

A MANUAL

FOR THE MANAGEMENT OF

City and Suburban Gardens.

BY SHIRLEY HIBBERD. 1825-1890

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P R E F A C E.

OUR professional florists, who deserve no end of praise for the skill and patience they display in the exercise of their delightful calling, merit also some amount of censure for their forgetfulness of the millions who dwell in towns, flowerless and dejected. Works on gardening are so full of complicated instructions, and purely professional views of things, that plain people are usually frightened at their perusal, and fling them aside under the pressure of fearful visions of inevitable expense, painfully acquired skill, and innumerable impossibilities, which seem woven up with a pursuit at once simple, profitable, and delightful. The literature of the undertaking is burdened with technicalities, remote allusions, and instructions which few have the means of carrying out. Having experienced this difficulty, and having risen out of it by perseverance, and a sort of compulsion arising out of a love for flowers, and a desire to be familiarly acquainted with them, I have felt that I might render a service to

many of those, who in “populous cities pent,” would assemble round their homes as much floral beauty as the circumstances of the case would admit.

People are willing to pay liberally for plants, as the thousand yearly sold in London testify, but few know how to preserve, improve, and propagate them; and assuredly the pleasure is increased a hundred-fold when we can by our own care bring our favourites into bloom, and rear from them little troops of baby plants, to increase our stock and take the places of those that age or accident cut off.

I made some acquaintance with gardening when very young, for my father was an enthusiast in the culture of monster melons, pumpkins, and blanched celery, as well as in the more refined departments of flower-growing; and to an appetite acquired in childhood I owe many of the choicest pleasures and associations of my life since. But that others may share these with me, in spite of city smoke, dust, and scarcity of leisure, is the object of this little “Manual of Town Gardening,” which is strictly the result of experience, improved by reference to such works as afforded me suitable information, and which are in every case duly acknowledged.

S. H.

THE TOWN GARDEN.

CHAPTER I.

INTRODUCTION. *Stupid rant*

It is generally thought that a city garden is an impossibility! that vegetation cannot be reconciled to the close air, the darkness, and the smoke of towns; and that all attempts to mingle the rural with the urban must, like Brummel's forty neck-cloths, turn out failures. There can be no greater mistake than this; and though city ~~garden~~ing has its disadvantages and difficulties, the man determined to succeed, may produce not only green stuff but flowers, in a north aspect, and under the very shadow of a gasometer. The problem is, how to grow flowers in a soil of cinders, and an atmosphere of smoke?—flowers which, of all things, revel in sunshine, and demand it as their daily food.

Town gardening, as at present practised, is indeed a sorry affair. Neither the scientific gardener, nor the enthusiastic lover of natural beauty, carries his garden with him to the town when necessity compels him to a sojourn in Smoke-land. Agricultural ingenuity and amateur patience seem neither

of them to dream that city life might be vastly improved if a few flowers were sprinkled about it, so as to restore to the heart the social warmth which money-getting had crushed out of it. Yet the love of flowers seldom dies out in man ; and though the eye get hard and the mouth puckered by long sacrifice of life to commerce, yet the one is capable of a joyous twinkle, and the other of a sudden smile, when a violet-girl crosses the path in February, or when the nose catches a momentary odour of mignonette from the soot-box on the window-sill in May.

In the musty courts and alleys, wall-flowers, stocks, and musk-plants are purchased every spring, and set to flourish in broken teapots, saucepans, flower-pots—damned for ever by green or brown paint—or rotten boxes filled with stuff called mould, but which looks like the dust of a perished mummy. These go black in the face in four days from the date of planting, and die three days after that from sheer suffocation, gasping up to the last moment for light and air. Geraniums pass a torpid life on window-sills and in dark parlours, where none but the housekeeper can aver they are geraniums—such naked, smoke-dried sticks do they appear. In summer they become herbaceous, and put forth a few shoots of any tint but green, and sometimes a blossom or two of wretched quality, much to the joy of the dame who lavishes her skill upon them ; but, after a brave attempt to grow and flourish, they once more take the soot-sickness, become limp and leafless, and pass the winter again in oblivious hybernation.

Thousands of beautiful plants are every spring and summer brought from the nurseries round London, and sold in the city to undergo the slow death of suffocation—dying literally of asphyxia, from an absorption of soot in the place of air—their demise being accelerated by copious supplies of water at improper times, or the withholding altogether of the refreshing element. The wonder is, not that such plants perish miserably, but that they last so long, when plunged, without hope of relief, into such a “Black Hole of Calcutta.”

As we approach the suburbs, gardening matters look up a bit. As shop fronts disappear, forests of green iron spikes spring up, enclosing small plots of garden-ground in the fronts of suburban residences, where bank clerks, thrifty traders, agents, actuaries, poor authors, and *hoc genus omne*, seek evening repose with their families, and ridicule the innate love of man for things rural by giving countenance to the labours of the gardener, who calls once a fortnight to dig and rake the sour mould round the paternal laurel trees, and shave the small lawn into a condition more smooth than green.

Here overgrown box borderings give shelter to sooty patches of London-pride, consumptive hearts-ease, and nasturtiums that rival pumpkins in size and rankness. In spring, a few clumps of primroses and cowslips appear, planted by some hopeful Alcinous or phlegmatic Semiramis, which would refresh the eye of the man of business as he hurries out at half-past nine, did they not droop as soon as

planted, and vanish altogether in a week, no one knows why or whither. When these are gone, wall-flowers, early stocks, sweet-williams, and double-daisies, appear in lively variety ; and as to arrangement, in every degree of bad taste. These are usually purchased of some itinerant florist—who carries the joy of Midas in a wheelbarrow—at various prices, ranging from one to ten a penny. Forthwith the garden breaks into bloom again, and displays as much colour as the ten thousand variegated oil lamps at Vauxhall. But, alas ! the lamps go out, and leave the wicks sticking in the ground, in a state of very pure charcoal.

Towards June a few geraniums are to be seen, arrayed in papistical scarlet, as if they were blushing for the gardener ; and with these are, perhaps, intermingled a few verbenas, and a blue iris, some marigolds, cat-tails, crysantheums, and hollyhocks, all more or less blighted by smoke or ill treatment ; dingy hollies, rising out of pyramids of stones ; stiff laurels, that look as if they were cast in bronze, and have not been known to grow an inch since they were planted ; dilapidated lilacs, forming Arcadian retreats for cats and slugs ; lime trees, that are every year cut into the form of square boxes on pedestals, and sufficiently accurate in outline to have pleased Euclid ; with occasionally a spasmodic Virginian creeper, which perishes every autumn, purple with asphyxia, plastered on the wall like a half-finished fresco ; a palisade of ivy claiming no kindred with “ the ivy green ; ” or a jasmine, sticking to a wall

or portico, its long thread-like fingers drooping to the ground, as if its blood had long ago dried up and left it too weak even for an act of suicide :—these are the elements of what are called front gardens, each of which would be a Pæstum, were it not that the roses, hitherto unmentioned, never blossom. Nevertheless, go from the heart of the coal-black Babylon in whatever direction we may, we meet with the same spectacle of sooty gardens run to seed, the plants being converted into smoke filters, and the soil into a warren of worms.

Yet this Abdera of suffocated greens may be converted into a Campania of luxuriance, provided the right means are adopted, and this, too, without excessive toil or exorbitant expense. It is, indeed, one of the peculiarities of gardening that a man may spend upon it just as much as he can or will, and—short of absolute waste of money—always with a satisfactory result ; yet excessive expenditure and great loss of time are neither of them necessary sacrifices, when a few parterres are to be filled with flowers, and maintained in such order as shall not only please the eye but instruct the mind and refine the heart. Men love flowers, or they would never tolerate those nurseries of soot to which we have just adverted ; and because these Stagyrian retreats are abandoned to the cats and the sparrows, only proves that their owners have not sufficient knowledge of their management, not that flowers are obnoxious, or gardening in town essentially a bugbear.

The point we wish to insist upon here is, that the wretched aspect which town gardens usually present is by no means necessary, but in every respect inexcusable and disgraceful. In proof of this, observe with what success some few of the gardens in the centre of London are cultivated, particularly those near the Inns of Law, which exhibit a freshness as Arcadian as the surrounding enclosures do a darkness quite chaotic. It is on the verge of the town, where the suburban villages—such as Edgeware on the west, Bromley and Plaistow on the east, Clapton on the north, and Dulwich on the south—commence, that we find the best examples of suburban gardening. But the improved appearance here is owing rather to the better means, and more rural inclinations of the inhabitants, than to any very great advantages in point of situation; although, of course, every increase of distance from the influence of the city dust and smoke is an advantage not to be forgotten. The profusion of floral beauty, the exquisite freshness of vegetation, and the superior taste of arrangement, are as striking in these localities as the sooty blight and deformity are in the terraces nearer town. Yet in the midst of the urban dreariness there are some strange exceptions, which prove the capabilities of a London atmosphere in a pleasing and satisfactory manner. In the midst of a close row of houses, adorned in front with marigold and chrysanthemum wildernesses, and at back with elder trees and wet clothes busily imbibing blacks, we suddenly come upon a

garden, so exquisitely arranged and cultivated, that we are positively startled at its appearance in a region which seems eaten up with dinginess and dun colour. There are two such examples in the New Road at Pentonville. One is on the right hand from town, a few houses past the Angel Inn, the other is on the left, a few yards on the city side of Pentonville Chapel. Both these gardens are models of grace and beauty, and the freshness of the foliage and brilliancy of the flowers are marvels to one who associates with a town garden the idea of necessary barrenness. We ourselves have succeeded in a district where the chimnies are more numerous than the trees, and the sky not of the most Italian blue, in rearing and maintaining a profusion of gay flowers, the healthiness of which match with their beauty, and stand in strange contrast with the perennial dulness of the gardens of our neighbours. The result of our experience is to convince us that, while there may be some few localities where the atmosphere is so impregnated with the fumes from chemical works as to render floriculture a very hopeless enterprise, yet, as a rule, every citizen may have his garden, in doors or out of doors, at a small expenditure of time and money, provided he knows the best way of going to work, and is not bitten with any madness to grow such plants as are known not to bear the smoke complacently.

To remove such difficulties as are peculiar to town gardening is the object of the present work ; and if the reader has sufficient enthusiasm for the

task, we can assure him that, by following our instructions, he may improve the elegance of his city residence, and increase his resources of innocent and pleasurable recreation, by surrounding his home with vegetable life and beauty, of a perfection but little inferior to that attained under circumstances the most favourable.

As might be expected, the expense and trouble attending the management of a city garden are greater than those which attend the management of one in the country. To succeed to such an extent as to derive something more than a child's pleasure from the pursuit, needs care and patience, and a settled determination to set small difficulties at defiance. But then how great the remuneration—to be able to subdue nature thus, and compel to a healthy, and (as we believe in Wordsworth) we will say a happy life, such fragile and delicate existences as flowers, under circumstances the very opposite of those to which, in their free state, they are accustomed. In the dusky town, of all places in the world, the presence of flowers must be needed to call us back, now and then, from the feverish haste of business, and remind us of our childhood and early home, of our first loves and first rambles, of our mothers' smiles and kisses, and of the golden California we then found in a meadow of buttercups. Or if our whole life, from ~~infancy~~ onward, has been spent between these begrimed walls, there is the greater need to be continually reminded that there is a world of perennial loveli-

ness beyond the influence of our commercial hurry, to which, if we will sometimes turn for solace and refreshment, we shall escape having our souls crushed out of us by the sharp edge of a shilling. And even if they serve us no such poetical uses, it is still worth a small sacrifice to take breakfast with the cheerful prospect of blooming parterres, redolent with odour and glowing with rainbow colours, pleasantly smiling before the parlour window ; and there is little fear that, when this has once been enjoyed, the flowers will soon become a source of much higher gratification ; the more pure because it appeals to our love of beauty, the more enduring from its incessant change on change—each season bringing its own troop of floral attendants, which, like the hours, revolve in a circle, and keep pace with the varying emotions of the heart.

CHAPTER II.

ON LAYING OUT.

General Instructions—Parterres—Paths and Borderings—
Modes of arranging Plants with a view to picturesque
Effect—Preparation of Soil, Manures, &c.

IN one of the Parisian exaggerations of M. Jules de Prémery, he says, we never see the sun in London: “A veil of black crape arises every morning from the Thames, spreading over the town, and at times allows itself to be pierced with a red bullet. It rains ink also, and he fills his inkstand from the spout at his window—it is economical.” Making allowance for the necessary exaggeration of the satire, how true a picture is that of the climate of London, where, from October to March, we are buried in a profound mist, composed of ammoniacal moisture, comminuted soot, and a thick vapour, half smoke, half animal evaporation, of a shabby drab colour, which, if we could not see it distinctly, would give unmistakable evidence of its presence to the nose. Soot in the air, soot dissolved in the rain, soot in coats thicker than paint on every ledge and wall; soot on the clothing, and in very visible particles on the nose and shirt front; soot on every leaf, and on the stems and branches of all trees and shrubs; soot everywhere, even in our lungs, where

it chokes up the bronchial tissues, and writes its black name in the bills of mortality. Soot is the first enemy and first friend of the town gardener. In the air it will kill his plants almost as rapidly as if they were mown with a scythe ; in the soil it will nourish them, and give them strength to resist the everlasting black deposit. Of old, the broth of vipers was used against viper bites, and here the bane and antidote are to some extent united.

The first work in laying out a town garden is to prepare a good soil. If you find a garden prepared to your hand, with paths and parterres ready laid out, the only labour is to make such improvements in their arrangement and quality as the circumstances of the case, and your own particular wishes, may suggest. But if you have to prepare all these, the task is heavier, though more likely to afford a satisfactory result.

To lay out a garden requires a considerable amount of judgment, so as to make the most of what space you have, and at the same time afford the eye a pleasing completeness of outlines. Town plots are usually so small, that it seems like burlesque to talk of "landscape gardening" in connection with them ; and yet some sound notions of the picturesque are needed in one who undertakes to arrange a small enclosure, so that it shall present, at *all* seasons, an agreeable picture, and allow of such arrangements of the plants as to size, colour, and character, as to combine as much variety as possible in one harmonious whole.

The particular shapes and sizes of the parterres, and the special conceits of winding walks, "green arbours," moss mounds, and such like rustic trickery, must be left to individual taste, and the facilities of space and situation. But whether you commence operations on a demesne of many acres, or a walled-in plot of forty feet by ten, by all means avoid incongruities, and attempt no more than you can carry out completely. In an ordinary town garden, measuring (say) some thirty feet by sixty, anything beyond a plain arrangement of oval and circular parterres, separated from the wall borders by a plain continuous path, is out of the question. Some people sketch out a narrow path of the most serpentine outline, which from a distance looks like a sandy snake ; and this, after leading a visitor from the back door by a number of convolutions over every square yard of the entire garden, until he is dizzy with curves, returning again and again upon themselves, ends abruptly in a high grimy wall, against which a few stones are piled to represent "rock-work." Now, besides the absurdity of a serpentine path in a small garden, such a path is made still more ridiculous by the fact of its leading nowhere ; whereas a simple division of the soil into parterres and gravel paths—without any attempt at the country lane or lover's walk—accomplishes all that it professes, by enabling the visitor to reach any object that attracts him, the path itself remaining a convenience, *not a feature*.

GRASS-PLOTS.

As a rule, it is not well to lay out any portion of a city garden for a grass-plot. To keep a grass-plot in respectable order involves constant attention ; and, where economy has to be studied, such a luxury is expensive. In addition to this, the limits of the garden being small, the grass gets trodden on frequently, and new paths formed upon it ; and these present a surface of hard black mould, instead of the uniform greenness and definite outline which such a plot should have. For front gardens, however, a close-shaven patch of grass is often extremely useful, both for its cheerful hue as seen from the parlour window, and for the neatness of appearance which it adds to the frontage of a house.

WALKS.

Walks should always be as broad as the size of the garden will admit. In a spacious suburban garden they may have a breadth of seven feet, but in a city enclosure such an ample measurement is out of the question. The author of the essay on "The Flower Garden" says, "Be it in what part of the ground it may, every path should be broad enough to admit three persons walking abreast. Who cannot call to mind many an awkward feeling and position, where want of breadth in a garden-walk or wood-path has called into play some un-social precedence, or forced into notice some sly predilection ? And who likes to be the unfortunate

lag-behind—*the last in a wood?*” However desirable a sufficient breadth for three abreast is, it is seldom attainable in city gardens; but however small the enclosure, economy of space should never verge towards those winding ropes of sand which form the walks of so many town gardens, and which, so far from serving as “walks,” are scarcely wide enough for the thin wheel of the hobby-horse which the proprietor of such a path is riding to death.

RESTORING OLD GARDENS.

In the case of a person wishing to restore an old garden, some judgment will be necessary in turning to account whatever it may contain of old shrubs, edging, and established walks. In an admirable paper on “Restoring an Old Garden,” contributed by Mr. Robson to the “Cottage Gardener,” he says, “In the first case it will be prudent to alter the *walks* if they require it, and at the same time plant thin edgings; although, for a small suburban garden, stone or brick edging would, doubtless, be preferred; but in most country gardens box is used, and certainly it is the best live edging we have. This being done, the bottom of the walk may be laid with such loose stones, brick-bats, or other rubble, as comes first to hand; and very often such materials are found in the course of operations going on, or, it may be, an old walk may furnish them.

“We may observe, that walks within six feet of a wall, against which trees are planted had better

not be excavated too deep; about six inches is plenty of material for most walks where the ground is not very moist. The gravel for the top will, of course, depend on what the neighbourhood furnishes; but while heavy wheeling-work is going on, it is better not to finish them, leaving that to be done later in the season. We have not said anything of the width of walks, because that and their directions can only be determined by the circumstances of the case; but we may observe, that we would rather have one good wide walk than two narrow ones; anything less than four feet is certainly objectionable in any but the gardens of the cottager; above that we leave the limit with the proprietor. We have been thus prolix on walks, because they form a very important feature in all gardens, and in none more than that of the amateur, be his residence rural or suburban."

ARRANGEMENT OF A SMALL GARDEN.

A garden facing a parlour window may very suitably have a patch of turf in the foreground; this must be kept closely shaven and clean, beyond this let there be a semicular border, then a path, and then again an oval parterre, or a series of beds and parterres, according to the extent of your ground. By planting showy annuals and bulbous plants in your first border, some shrubby herbaceous perennials in the first parterre, and some well-arranged evergreens beyond, you will have at all seasons a cheerful aspect and an agreeable arrangement of

colours. If kitchen vegetables be grown, they should be placed at the extreme end, as to grow them properly does not admit of pictorial arrangement. The author of the "Florists' Manual" says, "It is more difficult than may at first appear to plan, even upon a small scale, such a piece of ground; nor, perhaps, would any but an experienced scientific eye be aware of the difficulties to be encountered in the disposal of a few shaped borders interspersed with turf. The nicety consists in arranging the different parts so as to form a connected glow of colour; to effect which it will be necessary to place the borders in such a manner that, when viewed from the windows of the house, or from the principal entrance into the garden, one border shall not intercept the beauties of another; nor, in avoiding that error, produce one still greater, that of vacancies betwixt the borders, forming small avenues, by which the whole is separated into broken parts, and the general effect lost. Another point to be attended to is the just proportion of green turf, which, without nice observation, will be too much or too little for the colour with which it is blended; and, lastly, the breadth of the flower-borders should not be greater than what will place the roots within the reach of the gardener's arm without the necessity of treading upon the soil, the mark of footsteps being a deformity wherever it appears among flowers."

It rarely falls to the lot of the townsman to lay out his own garden, he generally comes into possession of one to some extent prepared for

him, and frequently better arranged than it would be by an amateur. In the case of finding his parterres and borders already formed, and the ground occupied with shrubs and hardy perennials, let him (as we have just hinted) make the most of that which is ready to his hand, and be by no means hasty to destroy that which may be turned to profitable account. But if, as is often the case in new suburban districts, the recently fenced-in ground is wholly unprepared, the opportunity is afforded of laying it out for the first time, and hence of making the best of every particular of aspect, soil, and extent. The labour in this case will be greater, but the reward fully proportionate.

In the first place, decide whether you will have a plot of grass or not; and do not decide in favour of a grass-plot unless you are prepared to trim it at least once a fortnight, nor unless you have sufficient room to avoid making any part of the plot a thoroughfare—for constant treading in one direction will ruin it for ever. Next determine whether you will allot any portion to standing kitchen vegetables, such as horseradish, parsley, and sweet herbs; as, if you do, let that portion be screened from the windows by your largest shrubs. Then plan your walks, making them few and broad rather than many and narrow. In a very small garden, the best arrangement is a simple walk round the plot, equally distant from the walls at all points. Between the walk and the walls there may be a continuous border of from twenty to thirty inches, but not

exceeding thirty-five. In the centre, and enclosed by the walk, you may have a square or oblong plot of grass, broken by three parterres of graceful outline, the centre one oval and the other a circular. If you do not care about the grass-plot, you may mark out one central parterre, and two smaller ones on each side of it, or one or two of the same size, and gravel the whole of the ground up to the borders. This plan will afford more walking room, and as much room for flowers as the other. At the wall most remote from the house you may throw up some rock-work, and on one side a mound, to be covered with ivy and surmounted by a good-sized shrub. The outside of the rock-work should be "built up tastefully with large clinkers, and covered with any large dark masses of rock, and the inside filled with rich mould. It should not be less than two feet six on one side, and should run down in the centre to about ten or twelve inches, and rise again to about two feet on the other side. If this, and a low mound be managed, and formality of outline studiously avoided, it will add very much to the apparent size and picturesqueness of your ground as viewed from the windows. Do not, on any account, stick shells or plaster casts about your rock-work ; the moment you do anything of the kind it becomes childish.

GRAVEL WALKS,

"In the gravelling of walks," Dr. Patterson says, "any rule for the avoiding of unnecessary expense,

and the subsequent trouble of weeding, must be a desirable object. Let the top stratum of stones be such as are raked from the surface of the garden in dry weather, and made perfectly clean by sifting, which is by far the readiest way of getting quit of them in clearing the ground. By such method, the top stratum being of small stones, much less gravel, which perhaps must be brought from a considerable distance, will suffice. To have no unnecessary carriage, the gravel at the pit or river side must undergo one sifting with a search one inch between the wires, disposing of all large pebbles. Of stuff in this state walks are commonly made, and the result is evil continually. The small sand is a seedling bed for all manner of weeds, and the coarser part compacted with it renders hoeing almost impracticable ; nor is the work well over till, in showery weather, there is need to begin it again. Thus the coarse and fine work to each other's hands, the one giving birth to weeds, and the other protecting them. Divide and govern—dissolve the compact, and the conquest is easy. Use a quarter-inch search for second sifting, and apply the coarse to one part of the walks, and the fine to another. The coarse, it is true, does not bind ; but that is the beauty of it ; it will not grow one weed for many years. No feet are idle on such a walk. Every one who comes into the garden does some good ; the gravel is continually shuffled about, and an immense deal of work is saved to the hoe. For dryness it is admirable—a property which makes the roughness

a pleasure, as every one feels in walking on the sea-beach, though much rougher, and not more dry. And now for the small sort, which is almost pure sand, and in most cases will be three to one of the gravel; it binds and grows weeds, but the Dutch hoe pares it as easily as moss is scraped from a tree. For the wheels of a little coach such walks have the smoothness of marble; and as to the raking of leaves on gravel, the work is imperfect; this is as neat as the sweeping of a floor."

EDGINGS.

For edgings the best is undoubtedly the dwarf box, but it is expensive, and in small town gardens apt to harbour slugs. The best edging, after box, is that made of thin slips of painted wood; it is very neat, and lasts many years. When it begins to rot it forms a harbour for slugs and other pests, and it must be renewed. To plant box edging requires considerable skill; and, unless properly accomplished, it will exhibit a bungling appearance, and necessitate wasteful outlay. In the case of restoring an old garden, the replanting of the edgings is often one of the most serious matters; but a thickly grown border of box will repay all the trouble it may occasion. Take up with a spade a portion of the old edging, separate the roots, and make one foot of the old serve for half-a-dozen of the new, or even more, if it be very much overgrown. Tear it up thoroughly before you replant, and throw away every shred that is thicker than a crowquill. Cut off all the roots

beneath the uppermost tier of fibres—a single fibre being sufficient. The plants when trimmed should be about four inches in length. Now dig the surface, and set the line carefully for your edging, making the windings easy, and the straight lines true. Bring the level exactly to the line, and beat all smooth and firm. With a trowel cut by the line to the depth of three inches, pulling the earth towards the walk, and lay the green tops of the plants to the line, setting their heads above it not more than one inch, and all touching one another. Arrange the tops only for evenness ; if you provide for the evenness of the roots, your plants, instead of standing in close uniform line, like a file of well drilled grenadiers, will stand at all heights and dressings, like a veritable awkward squad. By holding a few plants exactly at the top with one hand, and applying the earth to the unequal roots with the other, you will ensure regularity, neatness, and strength, without which a box edging is a most unsightly affair. Box may be planted in September, October, or November—in February, March, or April ; but not at all at midsummer or midwinter.

“ For other edging sea-pink is very good, but it soon gets deformed with blanks, unless taken up and replanted : whereas box, annually clipped in autumn, will serve for the half of a lifetime. London-pride admits of paring, and will last for five years ; coarse polyanthus or primrose does well beneath trees. Should the root of an old tree come in the way, it is easy to keep up the green line by planting peri-

winkle, which needs little soil, or ivy at some distance, and leading the runners past the tree, where they will take root all the way, and being clipped, make a handsome appearance. The propensity of ivy to run up the tree is easily counteracted ; but should it be indulged, few things are more beautiful, and the tree is there rather for ornament than for the value of its timber. Double-daisy and cowslips may be used, and may be kept any length of time by occasional lifting and parting of the roots. Hepatica, blue and red mingled, make a beautiful edging, and will last an age : but the most brilliant of all is dwarf gentian ; it lasts long, but must have half a foot in breadth to secure plenty of its bright sky-blue flowers. The pansy or tricoloured violet is also fine, but must be replanted every year. For any place where the walk gets amongst high shrubs or trees, or where a sloping bank is of difficult keeping, there is nothing so fit for a low hedge as butcher's-broom ; it suffers no injury by drop or shade, and grows immoveably strong ; and not agreeing with the shears, it is in such a place more suitable in the natural sluggishness of its growth."—*Dr. Patterson.—"The Manse Garden."*

ARRANGEMENT OF PLANTS.

The good effect of a careful arrangement of paths, parterres, and borders, will be more or less marred or enhanced by the disposal of the plants as to heights, colours, and general character. The walls must all be turned to good account for creepers

and climbing shrubs ; the borders for low growing perennial flowering plants and annuals, and the central parterres for shrubby and herbaceous perennials and standard shrubs. It is a good plan to grow some two or three sorts of bulbous plants in beds by themselves, and to mingle some others with the general vegetation of the borders. Thus, in a garden of my own at Pentonville, I found it an easy plan to fill two small circular beds, one with hyacinths, and another with tulips. The effect of the large masses of colour was very fine, and especially acceptable in the early spring, when other flowers are scarce. When the bulbs were removed I filled up the beds with potted perennials, such as geraniums, pelargoniums, calceolarias, fuschias, pansies, verbenas, and heliotropes, preferring always to have *few sorts*, but abundance of *plants*, so as to produce rich masses of simple colours, rather than a spotted harlequinade of every tint of the rainbow. Crocuses, hyacinths, and tulips may be well planted in the borders, in clumps of half-a-dozen bulbs together ; and jonquils, daffodils, narcissus, and iris, in large patches, on the raised beds at the back ; the daffodils looking very fine if planted thickly on a slope ; while the jonquils and narcissi may be inserted between the stones of the rock-work, where their graceful foliage will bend over the dark surface and give it a charming effect. On your darkest wall plant ivy ; on the other walls, clematis, passion-flower, and others, as directed in the chapter on "Trees and Climbers." In dark damp corners

you may place holly, white and yellow jasmine, ivy, aucuba japonica ; and if you have sufficient room, and desire to screen from view a neighbouring chimney, pigeon-house, or rope-walk, the pear, ash, lime, elm, or Siberian willow may either of them be safely planted, as they all bear smoke, damp, dust, and darkness well. Bear in mind, that the "drip" of trees is very pernicious to plants growing beneath ; and if you indulge in trees expect very little to grow under them.

On the choice of plants for borders, Mr. Niell says, " The plants are arranged in mingled flower-borders, partly according to their size, and partly according to their colour. The tallest are planted in the back part, those of middling size occupy the centre, and those of humble growth are placed in front. The beauty of a flower-border, when in bloom, depends very much on the tasteful disposition of the plants in regard to colour. By intermingling plants which grow in succession, the beauty of the border may be prolonged for some weeks. In a botanic garden the same plant cannot be repeated in the same border ; but in the common flower-garden a plant, if deemed ornamental, may be often repeated with the best effect ; nothing can be finer, for example, than to see many plants of double scarlet lychnis, double sweet-william, or double purple jacobaea."

FRONT PLOTS IN TOWN.

Most town residences have front plots, and these,

if well kept, add very much to the neatness, cheerfulness, and indeed respectability, of a house. Just as we judge of a man by his dress and general bearing, so may we judge of him by the appearance of his home. A scrubby patch of neglected crysanthemums trailing over a sour and ragged grass plot, or a sooty shrubbery of untrimmed, worm-eaten, and flowerless lilac trees, do as much to disgrace a house and its occupant, as a string of pewter pots dangling from the garden railings, and half-a-dozen broken windows. A front plot being smaller requires, of course, less labour than a garden, but, if possible, more taste. Let your balconies, porches, and stone steps be adorned with a few good shrubs in low painted tubs or large pots, such as rhododendrons, laurels, japonicas, and large geraniums. Match these with a neat arrangement of the forecourt. If large, and well exposed to the sun, you may treat it the same as a small garden, avoiding superfluous paths and large growing trees and shrubs. Lay out the plot in the simplest manner possible, and do not suffer your neighbours to laugh at an endless variety of parterres of all shapes and sizes, edged with oyster-shells, and filled up with plants that would disgrace a common. One central bed, and a continuous border, are usually all you have room for, or, at least, three (always prefer odd numbers) beds of equal sizes, and in these you may keep up a show of annuals and herbaceous perennials. The centre of each bed should have a handsome flowering shrub; and near the house one or two laurels and a holly.

will serve as a screen against dust, and ensure privacy for your windows. A few good geraniums in pots, on the steps and around the windows, will add to the gaiety of the scene, and occasion very little trouble to keep them in fresh foliage and bloom.

A very small plot is best laid down with grass or clean gravel, without flowers at all. In the centre a variegated holly, box tree, or laurel, may be planted; and all the labour required is to keep the grass closely shaven, or the gravel neatly swept. Here the object must be to produce a neat appearance, and to avoid all attempts at bewildering outlines, massive shrubbery, or thin sprinklings of innumerable colours. If you do not indulge in box edging in your garden behind, you should have it here if you grow flowers, it adds so much to the neatness and completeness of your outlines.

PREPARATION OF THE SOIL.

We now come to an important matter, namely, the preparation and preservation of the soil. This is the rock on which nine-tenths of townsmen split in their gardening adventures. It is a matter of daily observation that people spend large sums in the purchase of plants, gravel, and seeds, but neglect that all-important requisite—a sweet, light, and nourishing soil. Remember, to build a temple of flowers, you must have a solid foundation.

In the case of an old garden in town you will almost invariably find the soil exhausted. The

finer the quality of your seeds and plants the more they suffer by feeding on such miserable food. Cropped year after year, without manure, it gets at last into such an impoverished condition that more than half the labour and expense bestowed upon it is utterly wasted. Nothing more refreshes the soil of a town garden than a supply of fresh earth from a distant common or heath, or the parings of a meadow ; this, mixed with sand and well-rotted dung, will grow almost anything. Dung alone will not do so well as an admixture of virgin earth or peat and sharp sand, all of which may be obtained at little expense either directly or through some neighbouring florist. Sand and well-rotted dung you must have, or your bulbs will bloom miserably, and get exhausted rapidly. The soil must be light ; hence, if you have a stiff clay to deal with, be very liberal in your supply of sand ; river or sea-sand will do equally well, and do not forget the friendly offerings of the dust-bin—ashes at once manuring and lightening the soil, besides checking the spread of slugs and worms. Should your shady borders suffer from damp, dig a trench three or four feet deep down the centre of the bed ; fill this half-way up with large loose stones ; over this put a layer of hay, and then cover with good soil. In digging the ground you will, of course, remember not to destroy your labour by going too deep with the spade over the trench.

MANURES.

Manures must at all times be chosen to suit the nature of the soil. For strong soils the best manures are road-scrapings, lime, and building rubbish, pounded oyster-shells, sand, burnt clay, ditch bottoms, and vegetable refuse. For light, sandy soils use marl or clay well mixed with dung. If too light the manures are apt to be washed from the soil by heavy rains, therefore, in your anxiety to ensure light soil, do not overshoot the mark, and convert your garden into an arenaceous sieve. Cow and pig dung are best for light soils; rotted stable dung suits any soil, whether porous or heavy. There are many other manures which the townsman can procure with great ease; these are night-soil, fowl-dung, soot, bones, and horn. Night-soil should be laid in alternate layers, with double its bulk of soil, mixing a little quicklime with each layer to destroy the offensive smell. The mass should be turned occasionally until it becomes pulverised, and may then be spread on the ground, or mixed with composts for carnations, auriculas, roses, and any other plants for which strong manures are recommended. Soot is most useful, and if mixed with salt for bulbs has a wonderful effect; but care must be taken to subdue it somewhat by a good admixture with layers of mould and decaying vegetables.

All cuttings, trimmings, and green rubbish should be dug in at once, where it will act gradually and

form a nutritious mould. I have always turned to good account the autumn clearings of my garden in this way; and have never wasted the cuttings of shrubs, or the decayed tops of crysanthemums, dahlias, or clearings of annuals, but have invariably turned them in with the spade in some vacant spot where, with a good admixture of sand, soot, and salt, they have supplied me with a rich, light mould, free from worms. Bones are a powerful and lasting manure; they should be crushed, and mixed in small quantities with the soil in the autumn, and enrich the borders tremendously. In planting a vine, bones uncrushed are of great service, as they act slowly, and are almost inexhaustible in their supply of nutriment.

THE MAKING OF A DUNGHEAP.

Where a hot-bed can be maintained, you may have a regular supply of the best manure, or, if there is any place which can be set apart for a dungheap, by all means sacrifice the little space it requires for the sake of the additional glory it will give to your show of flowers. In making a dungheap, first lay a surface of old soil or turf mould, then throw a layer of dung on it, cover this with turf and sand, and again a layer of dung, each layer being a foot thick. This is better than heaping dung by itself, for it heats and parts rapidly with its fertilizing properties; whereas the earth and sand added to the heap imbibe the liquid and soluble portions, which are the life of all manures, and soon become as fer-

tilizing as the dung itself. Dung should never be used till it has rotted for some time ; and a dung-heap should be made where the sun can reach it, or the decomposition will be incomplete, and your plants will be injured by its rankness. Spring is the best time for applying manures, if they are properly prepared previously, except for such beds as are planted over winter—as for hyacinths, tulips, and other bulbs, in which case it should be laid on a short time before the bulbs are set. All stimulating manures are attended with danger, for a plant forced into growth by exciting manures, like a man purpled by plethora under an excess of beef and brandy, suffers from the slightest chill, damp, or drought ; unless, therefore, the distinguishing qualities of manures are destroyed by age and exposure to weather, they will kill all the flowers they touch ; though, if they are kept till they form a sweet mould, they are exceedingly useful for plants of a tender and herbaceous kind. No kind of manure excels in excellence the old-fashioned stable-dung, or well-rotted cow-dung ; and these become fit for use in one-fourth the time, and may be used in proper quantities without risk of danger. But, above all things, give manure of some kind or other, even if you kill a dozen or two of plants at first—for the system of endlessly cropping a barren mass of exhausted builder's rubbish is both a disgrace and an absurdity.

CHAPTER III.

Seasonable Work—How to secure fine Plants—Watering, Transplanting—Management of Bulbs—Arrangement of Colours.

GARDENING operations should be performed, as much as possible, during dry weather. In wet weather the soil sticks in clods to the spade or trowel, seeds fall in masses and cannot be properly covered, and the mould, instead of falling closely and lightly around the roots of plants in the process of planting, only clings to them in pasty masses, which crack in the first sunshine, and admit the burning heat to their roots, so that in dry weather they are parched up with drought, and, during rains, soddened till they perish of wet feet. Gravel-walks want occasional raking and rolling, for which, during a damp state, they are in best condition, though, if rolled while wet, the gravel sticks to the roller, and destroys the smoothness which rolling is meant to produce.

TO SECURE FINE PLANTS.

The design of the flower-grower is to have large flowers on dwarf plants, and to force all superfluous vigour of growth into the production of blossoms. Hence an excess of leaf and stem is always to be guarded against; too much weakening the flower-

buds, though excessive pruning and clipping will do the same. If plenty of healthy pulp is formed in the stems and roots, you may rely on healthy flower-buds; and the character of your blossoms will be improved by removing as many buds as you can spare. Always pinch off buds that grow in situations where they would be lost to view; their blooming exhausts the plant for nothing, and their removal will forward the growth and strength of those which are in the best positions. Never allow your plants to seed. It is always better and cheaper to purchase seeds of the established seedsmen, who produce and dress it properly, besides the advantage of change of soil and climate which you insure by having seed grown at a distance. Bulbs, if weak, may be improved by planting in good soil, and pinching off the flower-heads as soon as they appear above-ground; by treating them thus for one or two seasons, a quantity of pulp is accumulated in the bulb which enables them to bloom vigorously the next season. In your choice of plants do not be led away by lists of grand names. Many plants have been crossed and recrossed till it is almost impossible to distinguish or identify them; so that we might throw away half the plants in florists' catalogues, and still be as rich in variety and seasonal blooming as before. Above all, do not be content with poor plants, they are as much trouble, and little less expensive, than good ones. You may refrain from wasting money on rare and novel-named plants, without being compelled to seek

refuge in the sweepings of florists' grounds. Choose your plants for distinctness of character, variety and richness of colour, and hardiness of habit.

Mr. Rennie, in his "Alphabet of Gardening," says, "When a flowering branch or stem has been produced, and has begun to show the flower-buds, it must be considered that it can only blow finely in proportion to the quantity of healthy pulp, either previously in the branch, or from time to time prepared by the leaves of that branch. Consequently, if there are two or more flowers on the branch, each will require its due proportion of food; but if one or more of these be artificially removed, all the spare, pulp will go to feed the one, two, or more blossoms which may remain. On this is founded the practice of thinning out the flower-buds from the bunches of auriculas, polyanthus, chrysanthemums, and other plants, in order to increase the size and beauty of those which are left to expand. It is in consequence of the same principles that free exposure to air is indispensable for producing fine flowers, inasmuch as they depend for nourishment on the pulp, which without these cannot be formed. The vivid colours and pleasant odours of flowers depend on the same causes—for in the shade these are both feeble."

The majority of flowering plants love light, warmth, moisture, and a generous soil; those that flourish in the shade are usually so specified in directions for their cultivation. There is one peculiarity of vegetation, however, but little thought of

by amateur growers, and that is the necessity of rest at stated times. Plants forced into perpetual growth, by the application of heat and moisture, soon loose their natural vigour, and ultimately perish, just as animals do for want of sleep. The judicious cultivator will therefore make himself acquainted with the peculiarities of his favourites, and withdraw heat, moisture, and other excitements at the proper season, so that when reapplied they may have their proper effect. For want of attention to this point how many a well-stocked garden and greenhouse has been ruined, how many a choice collection has died out.

WATERING.

In watering plants be at all times careful not to suffer the wet to stagnate about the roots. In planting, this may be prevented by slightly heaping the mould around the base of the plant, so as to form a slight hillock, from which the water will flow; if this is not done, the plant should never be suffered to stand in a hollow, in which a pool will form at every shower, and keep the helpless sufferer in perpetual agony with cold feet. Let watering be performed regularly every evening in summer, using pond or rain water in preference to any other. A good plan, and one we have adopted for years, is to have a large can of boiling water, and another of weak manure water at hand, and into every vessel of water used, to pour a little of each, so as to warm it sufficiently that it does not chill the

hand. This will benefit the plants much more than the cold water just drawn from a tank, while the addition of a little liquid manure will help them wonderfully in flowering.

TRANSPLANTING.

In transferring plants to larger pots, or from pots to the open soil, always open up the matted roots, and shake off most of the exhausted soil, at the same time pruning the root so as to induce a new growth of fibres. Be careful to secure good drainage to all roots by placing fragments of broken tile, or potshreds, at the bottom of pots before filling in the mould; and in the holes you make to receive plants out of doors do the same, adding above the potshreds, if the soil be at all heavy, a layer of sharp sand, and above that a little moss. This will prevent both excess of moisture and drought, the sand promoting drainage, while the moss, acting like a sponge, holds sufficient moisture to keep the roots refreshed for a considerable time. Never press the earth so firmly around the root of any plant as to cake it into a hard mass, but leave it sufficiently loose for the entrance of the air and rain, and the expansion of the roots below.

ON PURCHASING PLANTS.

Amateurs usually purchase their plants when they are in full flower; in some cases this is necessary to insure excellence of quality; it is better, however, to purchase of a respectable florist, on whom

dependence can be placed, and to get your plants established before they open bloom. Thus I have always had my verbenas, geraniums, heliotropes, and the like, long before their time of blooming, and by planting them out with care in properly prepared soil have enjoyed their whole amount of growth and bloom. Plants purchased in full bloom and then placed out in the open ground are sure to fall back, even if you sink pot and all (which is usually the best plan), because having been reared by the florists under cover and with the help of artificial heat, the change to the open air is so great as to check them for two or three weeks. In this case it is best to sacrifice at once all the blooms that have opened by nipping them close ; then plant them out where they are to stand (with geraniums, pelargoniums, calceolarias, heliotropes, and fuschias, sinking pots without disturbing the roots ; and with verbenas, lifting the roots out of the pots and planting carefully in light compost), water well, and shade with inverted pots for a few days. The plants will sooner gain strength in this way, and will rapidly put out fresh crowns, and blossom abundantly till the end of the season, when they must be carried in doors and carefully pruned and re-potted.

PRUNING AND TRIMMING.

To preserve the neatness of your borders remove all dead leaves, stems, and faded blossoms ; allow no seeds to form on any of your plants. Be careful (except when pruning to check excessive growth)

not to cut away leaves and stems until they are considerably withered ; for by this means you destroy the means the plant has of accumulating pulp. The practice of trimming off the leaves of snowdrops, crocuses, and tulips, after the blooming is over, for the mere sake of neatness, is destructive to the plants, which require the assistance of their foliage in absorbing light and moisture for future blossoming. It is not wise either to tie up the leaves of fading bulbs, for in this way they are not sufficiently exposed. Annuals as they get shabby should be at once pulled up, as they exhaust the soil for nothing ; perennials should not always be allowed to perfect their last labours, but should be set back to strengthen them for the next season,

HOW TO PLANT BULBS.

In reference to the planting of bulbs and tap-roots, Mr. Lockhart, of Parson's Green Nursery, says, "Failures and disappointments in their flowering chiefly arise from the fact that amateurs, and sometimes professed gardeners, plant them too late and too shallow.

" No flower-root, however small, ought to be planted less than four inches deep, with the exception of the ranunculus and the anemone, and for the following reasons :—A flower-root at four inches deep is less liable to be affected by every change of weather than one planted two or three inches deep ; consequently its vegetation continues with less interruption ; cold weather does not so easily check its

growth, or warm weather excite it prematurely. It comes on with its own peculiar season, and flowers at its proper time. By planting early it makes good roots, and is thus better enabled to withstand adverse weather. As a general rule, large flower-roots, such as the crown imperial, hyacinth, lily, and narcissus, should be planted six inches deep, not less."

ARRANGEMENT OF COLOURS.

In all arrangements of seeds and plants ascertain previously their height, colour, and season of flowering, and pay attention also to any other peculiarities, such as graceful, bushy, or drooping habits, so as to place each in the situation in which it will appear to best effect by contrast. The dwarfest plants should of course be nearest the edge of the border, the taller behind, and so on, till the climbers on the wall or the bushes in the back parterres may form a suitable back-ground. In the arrangement of colours never place red flowers next orange or yellow, or blue beside violet or rose. The following arrangement will secure harmony and give the best effect to each individual plant:—White will relieve any colour except pale yellow; orange contrasts well with blues; yellow with violet; white suits best against rose or pink; lilac with yellow; and wherever you are in doubt with flowers of a mixed colour relieve them with pure white.

CHAPTER IV.

BULBS.

Bulbs and Tap-roots—General Management—Special Directions for the Cultivation of the Hyacinth, Tulip, Narcissus, Jonquil, Iris, Gladiolus, Crocus, Dahlia, Ranunculus, Marvel of Peru, &c., &c.

THE town gardener may rejoice that the finest bulbous and tap-rooted plants endure smoke with great patience, and produce a glorious show of colours in spite of darkness, dead walls, miasma, and the odorous effluvia of innumerable factories. Hyacinths, tulips, crocuses, irises, and narcissus may all be grown, if not to perfection, at least satisfactorily, for the purposes of recreation and cheerfulness, and may even give cause for an honourable pride if but a moderate amount of care be lavished on them. Bulbous plants require rich sandy soil—the lighter and sweeter the better. Fresh manure should seldom be used, and manure of any kind should never come in contact with the bulbs. The earlier they are planted the more strong will be their bloom; and all large bulbs should be planted deep, not later than November; and the beds should be watered occasionally with weak manure-water, until the blossoms open, when such watering should cease. If they appear above ground while

THE JEWEL

the day when we will light mould,
and the next morning let them
be in the sun to dry them up
and then lay a few pieces lightly
over them to keep them from
burning. If a few warm days,
the oil will be out and the oil may be
taken out and be strained separately
and then be put in boxes for planting
and the oil may be used in cosmetics and
other things. If you want to plant in the
ground it is best to plant in the
ground and let the oil be immersable
in water. If you want to plant your bulbs not to
be in the ground, then the plants should be
planted in the ground. The ground will be enabled,
and the plants will grow as you wish;
and the plants will be in full bloom,
and the plants will be a blooming

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There is a small amount of limestone to be
seen in the bed of the river in September
and October. It is in the depth of
the water, and is covered by a thin reddish
mud. It is not a layer of limestone
but a layer of sand
and sandstone, in this part
of the river bed, it is seen that
the bed is covered with a slight
amount of sand.

well-rotted stable or cow-dung, and then a mixture of mould and sand to within six inches of the top of the bed. Let this remain a week or so to settle; then sift over it three inches of pure sand, and on this lay your bulbs, six inches apart, in rows, so arranged in colours as to form, when in flower, a rich assemblage of striking contrasts. Cover your bulbs with a mixture of mould and sand to the top, avoiding pressure; and as the bed sinks, sprinkle mould and sand again to keep it to a proper height and convexity of surface. During winter water occasionally with manure-water, made by putting stable-litter into a large tub, and covering with rain water. When the shoots appear, cover again, always using plenty of sand; and if the weather is severe do not allow the green shoots to see daylight till March. From February till the blossoms open, give them more frequent supplies of manure-water, always avoiding not to wet the green buds. The strength of the manure may be increased towards the time of flowering, and as soon as the blossoms open discontinue it. In boisterous weather they need protection with sticks and strips of matting. They may be kept in bloom longer by the Dutch method of covering them with an umbrella, or awning; but there are few who care to substitute the view of a grey canvas for a brilliant show of blossoms, even for the advantage of increased perfection in the plants. It is a selfish mode of enjoying flowers to put them under tents, and excusable only in the case of the professed florist, whose business views compel him

to sacrifice the gaiety of his garden to increase the perfection of his flowers.

The mode of growing, described above, is similar to that adopted by the Dutch, and is recommended by the authoress of an excellent little work, called the "Handbook of Town Gardening." The modes adopted by the florists are various in detail, though substantially the same in general principle. One of our leading horticultural journals recommends the following plan:—

"Make a compost of two-sixths grey sand, or hungry sandy soil from heaths, three-sixths cow-dung, one-sixth tanner's bark, or leaves of trees. The bark must be at least two years out of the pit. This compost must be spread in a heap over a large surface, and left untouched for six months, then stirred from top to bottom, and kept clear of weeds. The bulbs should be planted in sand. Some days before planting let the soil be well stirred, and the thickness of about six inches taken off the top; then lay a coating of sand, and draw lines five or six inches apart; arrange the bulbs in rows as they are intended to flower, then cover up the whole and lay level. If early and late sorts are mixed together, the late blowers should be two inches higher than the others."

Admitting the hyacinth to be worthy of the labour that may be bestowed upon it, we think few who cultivate their city and suburban plots as a recreation to relieve the tedium of business, and add, at little cost, to the grace and elegance of home, will

find either space, patience, or leisure to adopt a mode of culture by means of composts which need months of previous preparation.

In taking up the bulbs pay no attention to dates, but observe if the leaves have lost their green, and are going yellow and dry. Better be a week later than a week sooner than the proper time. Faulty bulbs should be picked out at the time of planting, and put in a bed or patch by themselves, and as soon as they put forth flower-heads they should be nipped off with the finger-nail. By this treatment, for one or two seasons, most of them will acquire sufficient strength to be allowed to bloom with the others. Suckers and offshoots should be treated in the same manner as faulty bulbs, till they acquire size and vigour. It is out of the question for the townsman to dream of propagating by seed—it is a work only for the professed florist.

THE TULIP.

The tulip bears the London climate equally well with the hyacinth. I have grown them with great success, for years past, in situations most unfavourable for vegetation generally, and in the midst of almost impenetrable smoke. My tulip and hyacinth beds have always rewarded me well, and at much less expense and trouble than the good result would at any time have indicated. I should recommend late tulips to the townsman; and unless he wishes to make a feature of his tulip bed, let him grow them mixed, and avoid expensive sorts. For ordinary

purposes they will cost from ten to twenty shillings a hundred. Plant late in September, or early in October, and before planting take off the outer rind. In planting set the bulbs seven inches apart, and in straight rows, using the compost from hyacinth beds of last year. A plan I have adopted and found to answer admirably, for hyacinths and tulips, is one which I would recommend to all except scientific growers (for whom, indeed, I am not writing):—In August and September I accumulate all the green rubbish and clearings of the garden, in little heaps, out of sight. I keep all the chimney-sweepings, and provide myself with plenty of common salt. About the middle of September I clear the beds of their summer flowers, and dig them out three feet deep. The earth removed serves well for the autumn re-plotting of perennials, such as geraniums, fuschias, &c. Having emptied the bed I throw in a layer of sandy loam, a layer of vegetable rubbish, and a layer of soot and salt alternately, to within about ten inches of the top. I suffer this to settle for a week; I then stir it with a fork, and sprinkle another layer of salt, to destroy any vermin which may come up from the decaying refuse; I then throw in two or three inches of sand, and plant my bulbs in rows, covering with light earth mixed with sand. As the bed sinks, after the first rains, I fill up with any mould which may be handy, and water once a week with manure-water, made as directed elsewhere, and continually cover with light sprinklings of dead

leaves or sandy loam till the March frosts are safely over. I then carefully rake off and trim up the beds, leaving them slightly convex to carry off heavy rains, and to improve their general appearance. I now water twice or thrice a week, and cease watering as the plants begin to flower. When my bulbs come out, I put in potted geraniums (sinking them in pots rather than taking out the plants), calceolarias, verbenas, pelargoniums, arranged in masses of colour, making up the edging of the beds with some good annuals, such as double stocks, balsams, clumps of clarkia, mignonette, and lobelia, &c., all of which have been previously forwarded in-doors, or pricked out of borders where the plants were too crowded to blossom freely. Thus I turn my tulip and hyacinth beds to good account, and incur no expense beyond a few pence for salt. As my bulbs lose character, I shift them to the borders, and plant them in clumps, or treat them as recommended for their restoration. I can strongly recommend this plan to the townsman, who frequently finds a difficulty in procuring stable manure, but must couple the recommendation not to administer salt in excessive doses—for a pickled tulip, like a pickled herring, is a thing inevitably spoilt. Choice tulips, like hyacinths, need covering with canvas.

On no account allow tulips, or hyacinths, to run to seed. The moment the flower-heads get shabby, cut them off close, without wounding the surrounding foliage. Tulips should be taken and stored up

THE TOWN GARDEN.

in the same way as hyacinths ; allowed to remain in the ground their colours break, “ and half the beauty of the prize is gone.”

THE NARCISSUS.

The narcissus, daffodil, and jonquil all thrive in the suburbs of London ; but none of them bear too close a proximity to chimneys, steeples, and commercial dust. At Pentonville I have found them succeed, and occasion no further trouble beyond planting in the first instance ; they endure for many years, steadily increasing in strength, and do not require taking up. A top dressing with old dung benefits them in spring ; but without this, in good soil, they do well. I have usually planted the double daffodil in patches, on a raised bank, with *Narcissus poeticus*, also in patches, between the stones of the rock-work, with a few jonquils ; and then beyond these, on the upper border, hyacinths and crocuses in clumps of distinct colours. The graceful pendent foliage of the narcissi contrast finely against the dark stones, and the early clusters of noble white and yellow flowers have a fine effect as seen from the window of the breakfast parlour. I would strongly recommend the plants of this tribe to the attention of the urban florist for their patient endurance of impure air and common soil, and the gay appearance they produce with the smallest amount of trouble. The authoress of the “ Handbook of Town Gardening” speaks disparagingly of the narcissus as a city flower ; I can only say, that

at less than three miles from St. Paul's, it has been at least a bower anchor to me, and has never had much trouble bestowed upon it. I have grown with equal success the *grand monarque*, *bulbocodium*, *soleil d'or*, *poeticus*, and the double white; while of jonquils, the sorts which have succeeded best with me are the double Dutch, and the sweet scented. I never tried any but the common double daffodil; and my little sloping bank has rejoiced for many springs with its bright profusion of suggestive blossoms.

THE IRIS.

All the irises are beautiful, and all thrive in town. The Spanish sorts are of dwarfer habit than the English, and less showy. To a choice eye, however, they have points which entitle them to a fair share of garden-room. Choose your irises of bold colours; they are none of them expensive, and, when once planted increase considerably, and require only a top dressing with old dung, in spring, to keep them in good trim for years. None of them require much sun, and hence they may be planted near trees, or in an aspect which would be unfavourable for most other plants. The English sorts are very tall and showy, so be careful, in planting, to set them back sufficiently, that they may not hide plants of a dwarfer habit. Plant five inches deep in the open border, in September or October, not later.

THE GLADIOLUS

Is another friend to the townsman; it requires a generous sub-soil, and should be planted, not later than September, in pure sand. The gladiolus will not bear to be disturbed, and needs occasional watering, with manure-water, up to the time of blooming. They are showy plants, and look best if planted in clumps, each clump or group being of the same sort. The *floribundus*, *gandavensis*, and *Mdlle. Rachel*, all common sorts, flourish best near town, and are very fine in appearance. In the suburbs all the sorts of gladiolus may be grown; they need but little trouble, are cheap, brilliant, and hardy.

THE CROCUS AND SNOWDROP

Both flourish in town, and require only moderate attention. Cats, the greatest of garden pests, are very fond of raking up the bulbs of crocuses, and sparrows have a great penchant for the blossoms. Maugre these drawbacks, the crocus is an invaluable ornament to the spring parterres, and forms a gay enamelling to the barren borders at a season when every flower is precious. The snow-drop does not do so well as the crocus, but a little removed from the thickest of the smoke, and with a good allowance of light, blooms and prospers well. These small bulbs like a generous soil, and, beside top-dressing with old manure, need an occasional transplanting, which should be done in September or

October. A continuous ring, or a series of groups of snowdrops and crocuses have a good effect round a hyacinth or tulip bed ; or, if planted in beds by themselves, each bed of a separate colour, say orange and blue, with white between them, have a fine effect.

THE LILY.

Some sorts of lilies bear the town well, but other sorts fail miserably. The large white, and the speckled orange bloom well, and require no attention. The orange lily does well under trees. The Martagon, Thunbergs, the tiger-streaked, and Catesby's are, unfortunately, ill-suited to the town, and only thrive at some distance. The common sorts are, however, very handsome plants, and I would not recommend the growth of any others.

BULBS UNSUITABLE FOR TOWN.

The fritillaria, crown imperial, anemone, ranunculus, cyclamen, amaryllis, colchicum, dogs-tooth violet, and scilla are all unsuitable for town culture. They all, sooner or later, show the ill effects of impure air, some of them failing the first season. Those who like to try experiments may do well to make further attempts with the ranunculus and anemone, both of which are much less trouble to grow than is usually stated in books on gardening. In the suburbs they may certainly stand a good chance, if well removed from the smoke of factories.

RANUNCULUSES AND ANEMONIES

Require rich soil ; but the very artificial treatment adopted by florists, and recommended in treatises on gardening, is not only unnecessary, but a frequent cause of failure. Do not make composts, but manure the common ground of the garden well, whatever that may be. Prepare the ground in October, and plant in November, one-and-a-half inches deep for ranunculuses, and two-and-a-half for anemones. Top-dress them within a fortnight after planting, with one inch thick of old manure, such as the remains of a cucumber bed, or the soil from an old dung-heap. These plants bloom in the hottest and driest months of the year, and if planted too near the surface the roots get parched by the sun, hence the necessity of top-dressing. When in bud they should be watered night and morning during very dry weather, not at all otherwise.

THE DAHLIA.

Among tap-rooted plants the dahlia deserves the first place. This plant is often said not to flourish within city walls, but this is a mistake. It would be a pity if the urban florist were to be denied so glorious an example of floral beauty as this gay and noble flower. I would recommend every person, who has sufficient room, to allot a liberal proportion of ground to the dahlia, and not to be deterred from growing good sorts, none of which are expensive, even though the situation be not too favourable.

THE DAHLIA.

The dahlia thrives best in a light, dry, and airy situation ; damp and darkness are its enemies, therefore give it the best aspect you have. The tubers should be planted in the open ground, in the middle of May. If sprung in pots indoors, or on old manure under a glass frame, or still better, in a hot-bed, they may be put in in February. If started first in this way, they bloom earlier and stronger. In planting the tubers dig holes eighteen inches deep, into these throw a little old manure, and then a light sprinkling of sand ; then separate the tubers into as many pieces as there are eyes—planting only one eye, with a small portion of tuber attached, in each separate hole. Cover them with rich mould and sand mingled, and then water them. Be very careful that two of the same colour, or of different heights, are not planted near each other, and allow each plant a free space of three feet diameter. When the plants are a foot high cut off all the smaller shoots, leaving only two or three to each root ; as they advance in height remove all the side leaves and shoots to within a foot of the top. They require supporting with good oak stakes, three to each plant ; and, unless this be attended to, the winds will disfigure, or utterly destroy them before they bloom. The best way to protect them is, to drive in the stakes, at equal distances from each other, outside the plant, and then pass round the plant some strong cord, which should again be firmly fastened to the stakes. The leaves will soon begin binding, and your plants will be secure from the

winds, which do more havoc in town than in the country. They should have water daily, both to the root and foliage, and a constant look-out should be kept for caterpillars and earwigs. Let me conjure the reader not to set the rules of taste at defiance by an exhibition of inverted flower-pots and lobster claws, mounted on sticks, as traps for the latter class of vermin. I would have my whole garden devoured by a swarm of locusts rather than abuse my neighbours, and render myself miserable by the spectacle of these scarecrow vermin traps, so frequently set up by London dahlia growers in the midst of their fine plants, as if the two extremes of ugliness and beauty were ever to stand side by side. Do not, dear reader, fix the death's head and cross bones in the centre of your bright-coloured flowery banner.

For striking and propagating dahlia roots Sir Joseph Paxton recommends the following plan :—

(In April) “ the old roots should be started to grow before dividing or planting them ; they may be placed in a box of light soil or decayed leaves, and kept moist, setting them out in the sun during the day, and taking them in, or effectually securing them from frost at night, by some willows and a covering of ferns. As soon as the shoots are three or four inches long, they may all, except one, be taken off close to the old tuber, and struck, either as recommended for other cuttings, or in phials of water, or in damp moss ; it is important to preserve the lowermost eyes in plants intended to store away

for another season, although cuttings, taken off higher up the stem, will make equally good flowering plants for the present year. It is unnecessary to strike cuttings if the roots can be divided into as many pieces, each containing an eye, as there are plants required ; the buds should be allowed to shoot an inch or two before they are divided ; by large cultivators artificial heat is usually employed to start the dahlia earlier in the year ; but plants started towards the end of this month, under a south wall, or in a box, as above, will make stronger and shorter jointed growths, and usually flower the best."

When the frost has killed the foliage, the tubers may be taken up. The best time is about the end of November, and a fine day should be chosen for the operation. In removing them from the soil be careful not to cut the tubers, and as you remove them label them, so that you may know their colours for the next planting. Destroy those that have bloomed poorly, as at the low price at which good plants may be bought, it is waste of time to improve bad ones. Let them dry gradually, and become thoroughly dry before being stored away. Place the roots in a shallow box, and cover them with dry sand, and put them in a loft or under the stairs, or in any dry situation out of the reach of frost, or the warmth of a fire.

THE MARVEL OF PERU

Can only be grown at some little distance from town.
At less than four miles from St. Paul's it languishes

into a sort of atrophy, and dies at last in a wretched condition. Where the air and the soil are good it is a plant easy to cultivate, and gives a daily succession of its evanescent but beautiful blossoms. It must be treated, in all respects, the same as the dahlia.

THE TROPEOLUM

Is another tuberous-rooted plant that shows impatience of dust and smoke. There are many sorts, most of them half-hardy, and hence, needing shelter, except during the summer months. Out of doors they are seldom remunerative to the townsman.

CHAPTER V.

SORTS SUITED TO TOWN.

Hardy Perennials—The Sorts most suited for Town Culture—How to raise and treat them.

THE most showy of the hardy biennial and perennial plants are those which thrive best in town. They require simple treatment, and many of them thrive, with little attention, in a common soil. The chief points to be attended to in the selection of plants for the city or suburban garden are, distinctness of character and colour, hardiness of habit, and pleasing contrasts. New-named sorts are usually too expensive and too troublesome for the townsman, who cannot spare the time for such choice sorts as require nursing into growth. Because the plants will prosper moderately, with little labour, is no excuse, however, for a system of exhaustive cropping, by which the soil, tilled for a series of years without the refreshment of a particle of manure, gets at last effete and useless, and will produce nothing but a few succulent stems, which draw their life chiefly from the air, which, happily for them is laden with the noxious matter on which they live. Make no composts for your common plants, but manure the common ground with old stable-dung, or any of the manures recommended in Chap. III. ; and if the soil be heavy, add plenty

of sand, with occasional sprinklings of ashes from the dust-bin, which increase the lightness, at the same time that they are not the worst of manures.

Although it is usual to class the fibrous-rooted flowering plants under the several heads of biennial, triennial, and perennial, it is much simpler to consider them all as perennial; for those which die off after seeding may easily be propagated by slips, and layers, and seed; while many others will every season, of their own accord, ripen and scatter sufficient seed to maintain a succession of plants.

Among those usually treated as biennials, we find Brompton stock, wallflower, Canterbury-bell, hollyhock, scabious, sweet-william, rose-campion, digitalis, lavatera, carnation, and others. Many of these continue to flourish for many seasons, and all may be easily propagated either by seed sown in pots in-doors in autumn or spring, or by cuttings and layers made at almost any time in the summer, and rooted in the open ground.

THE CANTERBURY-BELL

Flourishes in the worst positions. It is a noble flower, and deserving a little extra care in its culture. Seedlings may be planted out in April; and some seed should be sown in sheltered spots at the same time, to furnish strong plants for the next season. The common soil of the garden does well for them, and all the sorts are very hardy. As it grows to four or five feet in height, it suits well to stand behind crimson, white, or yellow annuals.

The strongest plants will furnish cuttings, which may be stuck about in out-of-the-way spots, in the borders, and sheltered from the sun with inverted flower-pots; they will soon root and form strong plants for the next season. The best sorts are *Campanula medium*, *C. alba* (white), *C. floræ pleno* (double), and *A. persici folia*. The last of these is strictly a perennial, and deserves a good place. It gives a noble show of blue-and-white flowers, and needs little attention. The chimney-campanula may be made a most beautiful object by the following mode of treatment:—Put the seedlings into sixty-sized pots, filled with rich loam and dung, and as fast as they fill the pots with roots shift them into larger pots. If they do not throw out side buds pinch out the hearts; but if plenty of hearts show themselves, let the centres remain. The shifting into larger pots should be continued all the growing time; but in October and November they should be put in a cold frame, or on a window-sill in a cool room. Now give them no more water than will just serve to maintain vitality. In February, if the pots are well filled with roots, shift them again, and water them till they are large enough for twelve-sized pots. When they throw up their bloom-stalks, they should be spread out according to fancy to form wide screens, or be allowed to bloom in their own way, when they will form rich masses of pyramidal blossoms. Grown in this way, they make showy ornaments for garden steps, front halls, or rustic baskets.

WALLFLOWERS AND STOCKS.

No garden should be without the good old gilly-flowers—the pride of our ancestors, and the adornments of many a page of pastoral poetry. The wallflower is by no means too common a flower; its perfume and its early bloom render it welcome everywhere, and especially in the city garden, where it thrives as well as if miles away. All it asks is sunshine; damp, poor soil, and a hundred annoyances it bears patiently, but light it must have. By all means have good sorts; the dark red (*cheiranthus atrosanguinea*) is very fine, so is the new blue *C. cœruleus*, which has fine double flowers. The German sorts are generally good.

To secure a succession of good plants, about the beginning of July, pinch off from the finest plants a number of young shoots, five or six inches in length; crop the leaves, and strip the rest of the stem bare; dibble the slips so prepared into a newly-dug bed under a north wall. Sprinkle them with water, and shade any that the sun reaches, and you will not lose one.

STOCKS.

Double Brompton stocks are too handsome to be left out of the catalogue of necessary plants. They thrive well in town, but are at all times somewhat difficult to raise in anything like perfection. They must be raised from seed in a frame, or within doors; and, with those who have not the leisure or

the facility for raising plants of this description, it is better to purchase the young plants of the gardeners, and plant them out at once where they are to stand. There are few plants that degenerate more rapidly than stocks ; and to find good ones in a garden is a pretty sure guarantee of the owner's patience, skill, and delight in gardening. Stocks should always have rich soil.

THE HOLLYHOCK

Is a noble flower, most usually considered common, old-fashioned, and fit only for the forecourt of an almshouse, or an easy filling-up for artists who engrave children's pictures. No doubt the hollyhock is as old-fashioned as creation ; but are the special favourites of the florist and the public more modern, or more graceful beside a widow's wall, or more pleasing to the eye of sensitive and expanding childhood ? As a back-ground, or grown in avenues, the hollyhock has a fine effect. The poet Wordsworth grew this flower in great perfection, his simple taste delighting in long avenues of these Brobdignag people, which might very well be called flowering Lombardy poplars. With good soil, shelter, and sunlight, the hollyhock will attain a height of twelve or fourteen feet—its usual height being seven or eight. The colours are various ; the double sorts are the most showy. Sow the seeds in May in the open ground, and transplant to permanent spots in September. They are strictly perennial.

VARIOUS PERENNIAL PLANTS.

The scabious, sweet-william, rose-campion, fox-glove, lavatera, and monkshood all bear the atmosphere of towns with comparative composure. They require no special treatment, but fully repay for a sufficiency of manure, and careful watering and transplanting.

THE CARNATION

Is strictly a biennial, as are also its kindred, the pink and piccotee. None of these bear smoke well, and in some districts fail utterly. Air in which ammonia or carbon prevails largely, will not suit the delicate constitution of these plants; and even in suburban districts their culture is often attended with many anxieties, failure too often setting its black seal upon the patient labours of the amateur. Those who can afford it would do well to have a supply every year of well-grown plants, and instead of laying down pipings for the next season, to destroy them as soon as their flowering is over, and thus "end the heart-ache." In the suburbs they may be grown on good soil, but on poor soil they will not do anywhere. The author of the "Manse Garden" gives the following excellent instructions for the culture of carnations:—"The best soil for carnations is good loam, enriched with well-rotted stable-dung, and quickened with a little sand. The quantity of manure can only be determined by the previous strength of the ground; if made too rich,

the flowers will lose their fine colours ; if left too poor, they will want vigour. No recent manure should ever come near a fine plant. Let the ground be prepared before winter with dung, and a rough furrow laid up to the frost. In April give a fresh digging, and plant in rows three feet by two. This width is to make room for layers, without which a fine blow of carnations cannot be maintained above one year. As the plants shoot up, they must be tied to neat green rods ; and in order to have a fine blow, superfluous flower-buds must be pinched off, leaving only three or four to each stem. The young shoots near the ground, which do not run to flower, are denominated grass ; and from these the layers are selected. The operation is somewhat nice, but, when rightly done, is always successful, and good flowers are thus preserved and multiplied from year to year. Towards the end of July, stir up the ground about the plants, and mix with the soil a little old well-wrought compost. Have at hand a sharp penknife, a trowel, and a number of small pegs with an angle at the head ; pieces of fern will do, or wood of no more strength than to bear pushing into the ground. Scoop out the earth in the form of a basin around each plant ; select the strongest grassy shoots for layers, and remove such as are in the way ; crop the top leaves an inch from the heart, and pinch off all the rest, taking care not to peel the stem. Begin an incision on the under side of the shoot, a little below the second joint from the top, and cut upwards till the joint is

slit in the middle. Set the pointed extremity made by the slit into the bottom of the excavation, and there fix it with the peg ; place the head of the shoot erect, fill in the earth, make it firm, and finish the work with a good watering. The young plants will be ready for removal by the end of autumn, when they may be set in flower-pots if the soil is too damp, and apt to cause rotting in winter ; but if sufficiently dry, the layers may remain till spring, and it will be of use before winter to earth them up, sloping and beating the mould about them so as to throw off the rain. Although the propagation of this plant by pipings (as the grass shoots taken off and stuck in the ground are called) is by no means so sure as the above method, yet of a number some will take root ; and as pipings are more easily procured than plants, the experiment may be made. If carried to some distance, steep the slips in water till they swell to their proper size ; trim them as above directed, and set them firm into old elastic compost ; water plentifully, and set over them a hand-glass, first throwing water on the glass, and then earth to darken it, and let it not be stirred for some days, it being found that a deficiency both of light and air promotes the striking of slips—probably on this principle, that the sick, having no appetite, must avoid the exertion which requires food as well as that which food requires."

The greatest enemy to the carnation is damp ; hence the lightest and driest spots should be chosen for them. They are such choice things that it is

worth while, even in the worst localities, to exercise a large amount of care and patience, if not to raise, at least to preserve them during their season of flowering. My experience in London has taught me that the finest carnations may be grown, but at great expenditure of time and trouble.

When first planted, carnations are likely to be visited by cats, for grimalkin loves the newly-raked soil for midnight minuets and serenades ; and she finds, too, a soothing pleasure in nibbling the young green shoots. A netting drawn over the bed on hoops will keep cats away ; and an occasional inspection will be useful against slugs and worms. As the flower-stalks rise, tie them with strips of bass to slender sticks ; and, just before the buds expand, tie them tenderly with bass to prevent bursting, as the well-filled calyx of a carnation should, like a cos lettuce, be somewhat plethoric, and need holding in. Remove the bandage as the flower expands, and then take some white cardboard, and cut it into circular pieces of about two and a half or three inches diameter. Make a circular hole in each, and slit them through from the outer edge to the centre, so that they may be opened and fitted like an Elizabethan frill round the neck of each blossom. Unlike Elizabethan frills though, these collars will really add to the good looks of a carnation's countenance, and at the same time give support to the chin, and keep the head in a good position.

PINKS.

Clove pinks, piccotees, and all the varieties of the carnation tribe, need the same treatment, and well repay any labour judiciously bestowed upon them.

THE SALVIA

Is especially a city plant. It thrives anywhere, and requires only a little old manure mixed with sand, and an occasional pruning, to keep it in profuse bloom and respectable shape. *Salvia coccinea*, *patens*, *alba*, and *Mexicana* all do equally well, but *patens* and *alba* are the only two that stand the winter out of doors. *Mexicana* is truly a stove plant, but may be safely planted out against a sunny wall, or low trellis during the summer, and will give abundance of its scarlet blossoms. The authoress of the "Handbook of Town Gardening" recommends *Salvia dulcis*. This salvia I have never tried, but from its character I should feel assured of its success. It needs severe pruning to keep it within bounds, and continues in bloom till the end of November.

THE GENOTHERA,

Or evening primrose, is another friend to the suburban or city florist. *Drummond's* is a fine yellow, *Lindley's* a white and purple, and an annual called *rosea alba*, a charming pink and white, and *taraxacifolia*, a pure white. They are all easily managed, but must be raised in a hot-bed, or in the

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window of a warm room. The *taraxacifolia*, or dandelion-leaved, is the most suitable of any for the town garden, and is a fine ornament to the border.

The rockets, aconites, perennial lobelias, rose-campions, avens, alstroemeria, antirrhinum, crysanthemum, catananche, cinquefoil, and perennial poppy are all valuable as stock plants, which last for many years, require little or no attention, add very much to the grace and variety of the parterres, and thrive in the thickest part of town. Those who have little leisure, and but few conveniences for raising plants, should obtain a few seedling plants of each of the sorts they require, and plant them out at once in positions suited to their height, the colour of their blossoms, and their habit, whether shrubby, dwarf, or pendulous. The oriental poppy is a gorgeous thing, and will bear any amount of smoke.

PERENNIALS WHICH DO NOT THRIVE IN TOWN.

We now come to treat of a doubtful class of plants, in respect to which the citizen must exercise considerable discretion to avert disappointment. A few of the very best perennials are unfortunately but ill suited to town life, and in London, especially, manifest an impatience for their native air, which too often ripens into a fatal fever and carries them off. All these, however, may be grown in the suburbs at more or less distance from the operations of the smoke act, and with a soil and situation severally suited to them.

THE ROSE

Stands at the head of this list of questionable plants. Here our country cousins triumph over us, and with their glowing walls, their parterres of dwarf and moss roses, their stately standards, each laden with its blushing profusion of gorgeous blooms, reproach us for our London fogs, our London darkness, and for the mantle of black crape in which we are involved during five months in every year. Let all who live within a threepenny ride of the Bank beware how they meddle with roses. In the first place measure your distance from the city; the farther you are from the sound of Bow bells the more you may risk in roses. Next look to soil and aspect; the first cannot be too rich, or the second too sunny. Settling these points, choose your plants accordingly, and, rather than be without this "queen of flowers," put up with poor blossoms, when every exertion you make will not produce good ones; for a poor rose, unlike many other flowers, is a beautiful and fragrant object, and better than no rose at all. The cabbage rose, the common blush, the Provence, the Tuscan, the Rose de Meaux, the Tudor, the Bengal celestial, and the early crimson, are the best for town. China, sweet-briar, and moss roses will succeed only in the country; and the American roses no nearer than in the best suburban districts. However strongly I would recommend the townsman to do his best in roses, I would urge him not to attempt the growth

of China or moss roses, the experiment has so often been tried without success, even with all the resources of floricultural skill, that it seems at last a hopeless case, and its repetition suited only for those who have abundance of leisure, and who keep for their motto *nil desperandum*.

The soil for roses should be very rich and porous. A compost formed of well-sifted virgin earth or turf mould, old manure and sand, in about equal proportions, will suit well. This will require to be prepared some little time before the plants are set, and must be raked over and refreshed with old manure every autumn. If the trees get poor, they should be shifted into entirely new soil, as they soon exhaust the ground. Once in every four years this should be done, unless the continued health of the plants indicates that they still get food enough. February is the best time to transplant roses, or to renew the soil about them. When the bushes are taken up they may be laid together, and the roots covered with a good depth of earth to protect them from frost, and in this way they may be left for two or three weeks without injury, if you have not time to change the soil and replant them at once. On replanting prune them severely, root and branch. The more repose roses enjoy the better they succeed, therefore never shift them unless they show signs of sickness; and, as a rule, do not prune them much. Fork the ground well about them, and supply them regularly with plenty of manure, and they may last many years without the neces-

sity of a change of soil. To promote a succession of blooms, stems which have flowered should be cut down to a good eye during July; this will cause the eye to put forth quickly, and bear blooms late in the season. In October look after suckers, and remove them to make new plants, and at the same time prune carefully any branches that are growing rampant, setting each back to a good eye two or three inches from the origin of the young wood. Suckers make handsome plants if allowed to grow to their full height without any pruning except a careful pinching off of side-buds to prevent them becoming bushy. Treated in this way they make fine standards, and show noble heads of blossom.

PROPAGATION OF ROSES.

Where roses can be grafted and propagated there is no recreation more pleasurable. Some kinds are easily increased by cuttings made in summer. Each cutting should have one or two leaf-buds, and a small portion of old wood attached to it. No cutting will succeed which has a flower-bud on it. Strip off all the leaves but one or two, and plant them in light soil with a good watering. Shade them with hand-glasses or inverted pots, and, with plenty of moisture, they will soon strike. Layering is another method, and one more certain than by planting slips. The operation is thus described by Sir Joseph Paxton:—"First remove the leaves from the part of the stem to be buried in the soil, and about an inch of the extreme points

of the terminal leaves; then with a sharp knife make an incision a short distance below the most eligible joint to be found within about two or three of the top; the cut should pass half through the stem, and then upwards, nearly to the joint above, and cut the small portion of stem remaining on the tongue immediately below the joint; then bend the shoot down to the soil, which has been loosened for its reception, and secure it there with a small hooked stick, covering it with some finely-broken soil, an inch deep, made tolerably firm about it; after this, a watering renders the operation complete."

A small bed of dwarf roses has a fine effect; so do standards budded on wild stocks, if relieved with a patch of surrounding grass-plot. There is no choicer occupation than this for those who have sufficient love and leisure; and the effect of a well-grafted standard, blowing with half a dozen different sorts of roses, is charming in the extreme. The suburban florist may indulge in a delight of this kind, though it is so utterly denied to his friend of Fleet Street.

PLANTS TO BE AVOIDED.

Having dealt as largely as space will permit with those perennial plants which wholly or partially succeed in town, it remains to guard the reader against the culture of a few favourites, which either refuse to adapt themselves to city or suburban life, or do so but unwillingly. Among these we find the plants of the genus *Citrus*, or Portugal and

Spanish brooms, which are impatient of smoke and dust, and pine miserably if brought within the region of houses. The digitalis does best in the suburbs, the delphinium, an especial favourite with all lovers of flowers, for its rare shades of blue, will not succeed except in a very pure air; the gentian and the lychnis are both troublesome where smoke prevails, and may very well be spared, particularly since the scarlet verbena has so entirely eclipsed the latter, that it is now seldom grown anywhere. The peony, the pansy, the cowslip, the primrose, saxifrages, the showy mullein, the violet, and the daisy are all failures, and refuse to accept the most sincere services for their good, except in the purest air. I would advise even the suburban amateur to deal with them cautiously; and, unless he be bitten with a frenzy to grow every established flower we have, to make an exception only in favour of the pansy, the plants of which can be renewed every season at little expense, and which, with rich soil and sufficient moisture, will endure one season in smoke-town, and bloom freely before they die. I have had bitter experience with all the plants just named, and know to my cost the folly of attempting their culture except in spots where the sky is really blue, and where the tiles on the barn, and the bark on the old apple-trees have rich coverings of green and golden mosses. The appearance of old walls and old tree trunks is a safe criterion of the purity of the air; wherever in leaving town you catch sight of the

first patch of velvet moss on bricks or tiles, or the first beard of grey lichen on a jagged trunk, there you may pitch your tent without fear of cholera, typhus, or the headache; and there you may have your garden in true glory, and, as far as the soil suits, grow anything you please.

CHAPTER VI.

Annuals—General Uses and Culture—Raising and Planting out.

GENERAL REMARKS.

ANNUALS should never make more than a subser-
vient feature in a garden ; like horseradish to roast
beef, they can only reasonably be used as adjuncts
to better things, as garnishings for borders, fillings
up for gaps and corners, and for sprinklings of
colour easily obtained, and for which you have not
nobler plants ready to hand. Regard them as you
do the buttons on your coat ; have them bright and
good, but let there be something substantial to
support them. As annuals mostly appear and
perish in a season, they have the best of the atmos-
phere, and hence there are few but may be made
to succeed in London ; for during the bright weather
of our few summer months the air, in most of our
towns, is more pure than is usually supposed. The
winter and spring are the most terrible seasons,
and these the ephemeral plants experience but
little of.

TO RAISE HALF-HARDY ANNUALS.

The half-hardy annuals must be raised in-doors,
or with the help of heat in a frame, and should be
planted out in May.

A hot-bed is by no means a difficulty to the town florist, for a very small one will supply sufficient seedling plants for a very large space of ground, and will be useful for many other purposes at every season through the year. To make one, proceed as follows:—In February procure a frame of a suitable size, then make an excavation three feet below the level of the ground, exactly to fit the frame, which should be placed round the edge. Then throw in stable litter till it reaches half way up the frame; and over this lay well-sifted mould, mingled with a good proportion of sand, so as almost to touch the under side of the glass of the frame. On the surface of the soil sow your seeds, and cover with a light sprinkling of sand, marking each with a tally so that you may know their several names. Give them a gentle watering, and your labour is over. As the plants come up the bed will sink, and afford them sufficient space under the glass, and all the attention they will require will be a little water now and then, and a breath of fresh air every day, except during frost. Annuals marked in lists as half-hardy should be raised in this way. Asters, African marigolds, single and double stocks, Penstemons, Petunias, Hibiscus, Commelinias, Zinnias, sweet and yellow Sultan, *Oenothera*, and *Collinsia* should be first thought of. Be careful always to close your frame at night, for a single frost may eat up the whole of your plants before morning. During those sudden fits of bright, hot sunshine to which our ungenial springs are subject,

shade the frame with bass matting to keep off undue heat.

At the end of May many of the plants will be fit for planting out to the places in which they are to flower. This operation should be performed in damp weather, but not during showers, as unless the earth falls in a somewhat crumbly manner about the roots, they do not prosper after planting. The shrubby and spreading kinds should be planted out singly, the slender sorts in clumps, and all must be so arranged as to produce a good effect as to height and colour. The evening is the best time for transplanting. The best direction I can give you on this point is to advise you to study the lists given at the end of this work, which will enable you to make a better arrangement than any specific directions here. A hyacinth bed, from which the bulbs have just been removed, serves admirably for a display of annuals; and if they are planted in it at the beginning of June, they will flower very soon after, and may be kept gay till winter cuts them off if new plants are occasionally added to fill up the gaps of those which have bloomed earliest, and are likely soon to become shabby. I would never myself use a hyacinth bed for this purpose, while I could have my stock of half-hardy perennials, my verbenas, calceolarias, and fuschias to fill it; but as some people are very fond of annuals, here is a good mode of blooming the best sorts. Where a hot-bed cannot be had, a great many plants may be raised in boxes or pots in the windows of

kitchens and sitting-rooms, or purchased at a low price of the gardeners.

TO RAISE HARDY ANNUALS.

In sowing hardy annuals let the ground be well dug and raked, so that the surface is quite fine. An admixture of sand will improve it. Choose dry weather, and have beside you plenty of little sticks, with the names of your seeds written on them. If the sticks are rubbed with white lead the name may be written on the wood, which is a better plan than using strips of card, for the latter are apt to be destroyed by rain. Markers, of zinc or wood, prepared with white lead, are sold at a low price at the seed shops. Loosen the earth with a trowel, and make it perfectly level, then sprinkle your seed thinly, and cover them with a very thin layer of light, dry, sandy earth, and press all flat. Climbers, such as *convolvulus*, sweet pea, &c., may be sown around trees, or in circles, so that a stick may be placed in the centre for them to climb about. Never sow seeds in rainy weather, and avoid watering if possible at the time of sowing. Many of the seeds will not appear for a length of time, but do not disturb them on that account, they will appear at last, and in good time to take the place of those which have flowered off. The end of March or beginning of April is quite soon enough to sow hardy kinds; there is nothing saved by sowing earlier, unless you sow in heat, for seeds sown in February, or early in March, do not come

to maturity earlier than those sown at the end of March, and some are sure to be cut off by spring frosts.

As the plants appear they will require thinning, and most kinds will be bettered by transplanting; as Poppies, Virginian Stock, Nemophila, Stocks, and Hawkweed; while some do not bear transplanting well, particularly Mignonette, which, if transplanted, falls back and gets purple, and does not rally for six or eight weeks. With care, however, there are no annuals but may be transplanted; I have long been in the habit of improving my borders by transplanting annuals of all sorts, not excepting Mignonette and Poppies. Stocks and Enotheras, and many other kinds, were greatly improved by the process; they bloom more strongly and last longer, frequently shaming those which have not been disturbed at all.

Half-hardy annuals, of all sorts, may be sown in the open ground in May, but will not bloom so early or so well as if raised in-doors or in a hot-bed.

ARRANGEMENT OF ANNUALS.

Where there is plenty of room in the borders for annuals it is a good plan to mix the seeds of several sorts together, and to sprinkle them about indiscriminately; if they appear where they are not afterwards wanted they are easily removed to spots that need them, or may be destroyed by the hoe; and if two or three sowings are made, a succession will be kept up that will increase the gaiety

and fragrance of the garden considerably. The following sorts may be mixed to advantage:—

Mignonette,
Carnation poppy,
Papaver amoenum,
Dwarf Dutch poppy,
French poppy,
Branching larkspur,
Eschscholtzia Californica,
Do. *Crocea*,
Campanula speculum,
Candytuft, varieties,
Nasturtium,
Centaurea Cyanus, of various
colours,
Heart's-ease,
Clarkia pulchella,

Clarkia white,
Godetia of all sorts,
Antirrhinum majus,
Do. *sparteum*
Do. *versicolor*
Collomia bicolor,
Coreopsis tinctoria,
Convolvulus minor,
Gilia tricolor, and other
species,
Lobelia,
Linaria triphylla,
Lupinus lutea,
Nemophila grandiflora.

Any of the hardy annuals may be sown in the open ground in September to stand the winter, and in this way will make very strong plants for early spring flowering. The Californian sorts are well adapted for autumn sowing.

CHAPTER VII.

TREES IN LONDON.

Trees, Shrubs, and Climbers.

THE appearance of the squares and parks in London show how well most deciduous trees bear the smoke and confinement of towns. The substitution of the maple, the oriental plane, the willow, the lime, and several others of the most successful of those trees which now adorn our squares, in place of the dingy evergreens which formerly occupied them, we owe to the discriminating judgment and persevering genius of the late Mr. Loudon, who found our open spaces filled with sepulchral cypresses, everbrown, not evergreen firs, and worn-out arbor vitæ, and left them fine examples of landscape gardening. In small gardens, tall-growing trees will not flourish for want of light, but in every garden a few shrubs and well-chosen evergreens will increase the general effect, and besides giving an air of fullness to the ground, will also increase its apparent extent.

CHOICE OF TREES FOR TOWN.

In choosing trees and shrubs, avoid all those which have gummy or resinous exudations, such as firs, larches, and yews, for these invariably fail, in consequence of the adherence of the soot to their

TREES AND SHRUBS WHICH THRIVE IN TOWNS. 83

leaves and bark. Firs of all kinds are useless in town, they become brown and unsightly in spring, and gradually die off at the root, spite of all the care that may be bestowed upon them.

TREES AND SHRUBS WHICH THRIVE IN TOWNS.

Hawthorns, lilacs, the Guelder rose, almond, *ribes*, *laurustinus*, holly, rhododendron, *aucuba japonica*, *garrya elliptica*, buddlea, myrtle, magnolia, tree-box, and *Portugal laurel*, all bear town life well; the rhododendron and the *aucuba japonica* suiting admirably for balconies or areas, where they seem to glory in the smoke and dirt, and flower abundantly even if neglected. The common fig is a very useful plant either as a standard or trained, and has a fresh look all through the summer. It grows rapidly, and does not require the best situation. The ash, lime, Ontario poplar, willow, birch, common ash, maple, plane, apple, and pear, all thrive in town—*willows* and *limes* bearing the thickest of the smoke most bravely. The beech, the oak, and the mountain ash do not succeed, the cherry only partially. Laburnums and lilacs are grown very much in squares and front gardens, in all parts of London, but any one may see they are very much out of their element; for though they keep up a good show of green, they blossom poorly, and look very wretched in spring, compared with their kindred in the beautiful gardens of Homerton, Newington, Hornsey, and other such localities. The lilac is useful anywhere for its early leafing.

and its charming appearance when the leaf-buds first open, but it cannot be said to succeed when we remember how wretchedly it blossoms.

Most American shrubs prosper in town, and they afford the advantage of being removed at almost any size without danger. The laurel and the rhododendron are certainly the best evergreens for town, the latter being especially valuable for its gay show of blossoms. Of roses we have already treated, and here repeat our caution, that but few of them will bear the smoke, and the choicest kinds can only be grown in country air.

HOW TO PLANT TREES AND SHRUBS.

None of the trees and shrubs enumerated above need any special preparation of the soil. In planting do not bury the roots deeply, and in wet situations or heavy soils they should be raised into a little hillock above the surrounding surface, so that heavy rains will run off instead of forming pools at their roots. The holes should be partly filled up with stones or building rubbish, to prevent the roots from penetrating too deeply, and to ensure good drainage. Strong tap-roots should be pruned off, and the finer fibres laid out carefully. After planting, a good watering should be given, to carry the earth to the roots. Attention to the preservation of the delicate fibres will ensure certainty in their taking root, as on these the tree depends for its nourishment. An occasional top-dressing with dung, or digging round the root and watering with

manure water, will increase the number and beauty of the blossoms, and save the necessity of transplanting.

CLIMBERS SUITABLE TO TOWNS.

The best climbers for town are the vine, ivy, common fig, Virginian creeper, *Buddleia globosa*, white and yellow jasmin, the double pomegranate, common blue passion-flower, *Maurandya Barclayana*, *eccremocarpus*, *sollya*, *pyrus japonica*, and *clematis montana*. The honeysuckle, hop, and other varieties of *clematis* do not succeed. The ivy and the jasmin are of the first order of excellence for town; the first will cover a dark wall and thrive in the worst of soil, while the second grows and blooms profusely with very little attention. The jasmin is improved by a spring-dressing with old manure, and needs occasional training to check its excessive luxuriance. The light, graceful stems are best kept in order by strips of deal nailed before them, they are too numerous to be easily nailed up singly to the wall. It should have a sunny aspect. The Virginian creeper grows bravely on an east or west wall, and needs no training of any kind, as it soon adheres and trains itself most neatly. Its blossoms are inconspicuous, but it compensates for this in the rich autumn tints of its leaves. Grown so as to mingle its sprays with ivy it has a fine effect.

For trellises, *tropæolum pentaphyllum* and *peregrinum*, everlasting pea, *Maurandya major* *convolvulus*, Boursault rose, *campanula pyramidalis*,

penstemon argutus, *thunbergia*, and the blue passion-flower, are the most suitable, and all may be grown in town, with a little care as to lightness and richness of soil, and proper watering. *Campanula pyramidalis*, and *penstemon argutus*, are not strictly climbers, but, when fastened to a trellis or low wall, make a handsome display. All climbing plants are easy of culture.

A new and fast-growing climber of recent introduction, seems to suit well for a London atmosphere. It is the *Stauntonia latifolia*. It is an evergreen with the leaves in threes, each about the size of a sweet bay leaf. It will cover as much space in one year as the ivy does in two, and has a fine effect if led up a tree, or trained over an arch of wirework. It does not cling like the ivy and Virginian creeper, but must be led till it begin to twine, when it will require no further training. It is very hardy, fast-growing, and handsome, and no doubt, as it gets known, will be very much cultivated.

CHAPTER VIII.

INSTRUCTIONS IN INDOOR GARDENING.

Indoor Gardening—Management of Greenhouses—Window Gardening—Treatment of Plants in Winter—Plants most suited for Indoor treatment.

A WELL-STOCKED greenhouse is at all seasons a source of the purest pleasure, and although it sounds formidable and expensive, it is at once a simple and a cheap delight, far outweighing, in the results it produces, the trifling cost and steady attention which it requires, especially when that attention is one of its most attractive features. A spare room, an attic, a bay-window, or a sky-light, may be made into a greenhouse most easily, and will furnish you with seedling plants for your garden, and a good stock of geraniums, fuschias, hydrangeas, verbenas, and the like, for planting out in summer, or for blooming in the windows, window sills, and balconies, and, in fact, for every purpose for which you may require a show of the finest plants. The half-hardy perennials which require a greenhouse, or a home in a window during winter, are those which form the pride and glory of the garden in summer, which give it at once its brightest and most lasting colours, and its highest tone in a floricultural sense. All the annuals and hardy perennials that were ever grown,

penstemon argutus, thunbergia, and the blue passion-flower, are the most suitable, and all may be grown in town, with a little care as to lightness and richness of soil, and proper watering. *Campanula pyramidalis*, and *penstemon argutus*, are not strictly climbers, but, when fastened to a trellis or low wall, make a handsome display. All climbing plants are easy of culture.

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could be better spared than these, for all of them bear the smoke more patiently than any of the hardy plants, and their long duration from year to year, makes them at last a sort of household gods ; they become individualized, and we talk of our "old geraniums," or "our large fuschias," as we talk of our children, and with perhaps not the same affection, but one quite as pure and as domesticating to the feelings.

There is scarcely a house anywhere but affords some space suitable, and which can be spared for a winter garden. To the credit of the builders, most of the new houses recently erected in the suburbs of London, have small conservatories attached at the back ; while, to the disgrace of tenants, not a third of the number of these excellent contrivances are used for plants, but chiefly as lumber rooms for the deposit of boxes, trunks, spare carpeting, and broken furniture, and these sweepings of upholstery are left from year to year untouched, except by dust, spiders, and woodlice. Wherever the light foot or soft voice of a woman makes an echo in a home, there the character of the sex should be vindicated and sustained by the growth of flowers, and no wife, especially if she have children growing up around her, should suffer the disgrace of an unused greenhouse, or a house destitute of floral enchantments.

MANAGEMENT OF GREENHOUSE.

Unless the greenhouse has a bad aspect, there is scarcely any choice exotic but may be reared and

made to bloom in it. Fortunately, too, the same kind of treatment suits a majority of greenhouse plants, which love abundance of light, a mild moist air, and a soil composed of about equal proportions of fine sand, leaf-mould, peat, or turf earth, and very old stable dung. The still air of a greenhouse seems as much to promote vegetation as the shelter and the tender nursing.

I should advise an amateur not to attempt the growth of too many sorts of plants, but to have a good stock of calceolarias, petunias, geraniums, pelargoniums, fuchsias, fairy roses, hydrangeas, verbenas, alonsoas, and heliotropes, and unless he has plenty of time and means, abstain from the growth of cactuses, aloes, nepenthes, and rare bulbs, as they involve much trouble, and are suitable only for those who fear no difficulties. Give your roses, pelargoniums, fuchsias, and hydrangeas the richest soil, and your scarlet geraniums and verbenas the poorest.

In the first instance purchase some good stock plants of a respectable nurseryman. Prefer strong dwarf plants to those that have run up like Lombardy poplars in search of light. You may use seed if you will, but the process is tedious, though remunerative. The soil should be light, and an admixture of virgin earth and dung, so well rotted as to be crumbly, will give it freshness and good heart. In September, when the plants are brought in, cut them down low, leaving only three or four short stems to each plant, and always cut back to a good eye. Re-pot the plants in good soil, and in

pots *as small* as the size of the plants will allow; if the pots are the least too large for any of the herbaceous plants, they are apt to run away in leaf and produce but few flowers. Give them a good watering to settle the roots, and set them in a dark, cool corner for some weeks; then let them have the light and moderate watering, so as to grow *slowly*, but healthily, during the winter. In watering, never use *cold* water as it comes from a cistern, but add a little warm, sufficient to make it comfortable to the hand, but not so warm as that steam shall be visible from it. I have long been in the habit of adding a pinch of salt and soda to every can of water, and have seen its good effect in the healthy appearance of my plants.

The cuttings which are taken off should be trimmed of their leaves, except one or two of those nearest the heart, and only one or two buds left on each. The most woody are the best. As the roots always proceed from a joint, cut away all the stem below the last joint of each, and throw them in water, where they may lay for a couple of days; then fill a sufficient number of any sized pots you may be able to spare, with poor mould mixed with plenty of sand, and stick the cuttings in close to the pot all round, as many in each pot as it will conveniently hold. Cuttings always root sooner when close to the pot, hence, any planted in the centre will be likely to fog off. The cuttings should be kept moderately moist, and if each pot is covered with a hand-glass, to enclose the evaporating moisture,

they will root the sooner. As they make root, which will be shown by a sudden growth above, and a deeper green in the leaves, plant them out singly in very small pots filled with poor mould and sand, and give them plenty of light and only moderate moisture. Shift them to larger and larger pots as they seem to require it, and when they begin to make young wood, pot them for blooming in well-sifted sand, turf-mould, and dung.

USE OF THE SPONGE.

As May approaches, water all your plants with weak manure-water, and once a week, or once a fortnight if you are pinched for time, sponge over the leaves of every plant which are broad enough to admit of it. This is a most excellent plan, and cannot be too diligently performed by every person who has a true love for these household favourites. My plan is, to have a basin half filled with soft water slightly warmed; I then soak, and sponge, and dab the leaves of half-a-dozen plants till they drip heavily; I then go over each leaf separately, with the sponge squeezed nearly dry, washing the sponge as soon as it gets at all dirty. The water of course needs frequent changing. A hundred plants may be shampooed in this way in the course of a morning. It is surprising how much black comes off the leaves in this process, and the rich waxen character which the foliage soon assumes, the hearty shoots of sound wood which soon follow, and the increased brilliancy of the blossoms, tell how

much geraniums, like men, are benefited by keeping a clean skin.

Syringing is no substitute for sponging, except for such plants as fairy roses and others, where the foliage is too small for the process. The syringe is, of course, useful to these, and they should by all means have it, but wherever the sponge can be used there ply it regularly, and you will be infinitely rejoiced at the increased beauty and perfection of your plants.

WINTER MANAGEMENT.

During winter, when indoor gardening has its chief quantum of anxieties, use water sparingly, and suffer none to stagnate about the roots of the plants, or you may lose half of them. I have never used saucers, except for neatness in windows, they are very objectionable, as they keep the plants so wet about the roots. To obviate the annoyance of the dripping from the shelves, which is sure to follow watering, I have found it a good plan to have a shelf of zinc placed below all, and running round the house, the edges turned up and the whole sloping to one corner, where a vessel can be placed to receive it. Remember that all plants require a season of rest, and winter is the natural season for this repose, hence, when not growing vigorously, encourage them in a quiet life, and avoid forcing them into a preternatural growth by strong manures, or too copious doses of manure water.

BEDDING OUT GREENHOUSE PLANTS.

There is another error to be guarded against, and that is, planting your forward specimens in the open ground too soon. May, in London, is usually too soon, the end of the month or the beginning of June is quite early enough. I remember, some years ago, I had nursed up a collection of about a hundred fine plants, chiefly geraniums, calceolarias, verbenas, and fuschias, and as they were very forward, and my borders were crying out for food, I hurriedly sunk the greater portion in their places for the summer. The warm weather suited them admirably for a fortnight, and then came "a chilling blast," which "nipped my tender blossoms," and spoilt my show for the season. The massive heads of opening buds, on which I had centered all my hopes, were remorselessly cut off, and not until the season was nearly at an end did the plants regain anything like a respectable appearance. The geraniums were cut to the quick, though when first put out they were specimens worthy of a flower show.

PRUNING AND TRIMMING.

In pruning and trimming your plants have an eye to their future shape, and let your standards be compact and globular. Plants intended for windows should have trellises behind them, and be grown somewhat flat. It is common to find people turning their window plants to prevent them assuming this shape, but as the leaves continually turn to the light,

as fast as you turn them away from it, the process makes them giddy at last, and instead of ripening their wood, and making new flower-heads, their whole time is occupied and their strength exhausted in this rotary motion. It is better, therefore, to let them have their way, and make them as handsome as possible by spreading them out to the light.

Never suffer your plants to run up like overgrown boys. Cultivate dwarf habits, and allow only as much young wood to grow as will preserve the general shape and compactness of the plants, for where there is a superabundance of leaf there will be a poverty of blossoms. Dwarf roses, and plants with succulent stems, need little pruning, but geraniums and fuschias should be pruned close as soon as they have done flowering.

In planting out in beds, never remove geraniums or pelargoniums from their pots, but sink them as they are; verbenas, heliotropes, and fuschias may or may not be removed from their pots, and during the summer nip off any woody shoots that can be spared, and set them under a shady wall to make new plants for autumn potting. If verbenas are spread out and pegged down, they will put out roots at every joint, and give you an abundance of young plants for the next season. These should be separated from the parent plants before the weather gets at all cold, and carefully housed to establish themselves. To keep up a succession of blooms, nip off all flower-stalks the moment the blossoms get shabby, and never suffer your plants to seed.

WARMING THE HOUSE.

For the protection of plants during severe frosts, a few bottles filled with boiling water, and placed on a table or stool, will be sufficient. A correspondent of the "Cottage Gardener," writing in March, 1853, says on this subject—

"On the first approach of the late inclement weather, I endeavoured to light a fire in my furnace, but from the dampness of the flue it proved a very tedious and unpleasant affair; I therefore abandoned the task, and instead, filled a three quart bottle with *boiling* water, and placed it on a stool in the house about ten o'clock at night; I found this to answer the purpose admirably, the thermometer at seven in the morning standing at 34°. I have repeated this nightly to the present date (February 21), and seconding the hot-water-bottle by closing the lights while the sun is on them, am so satisfied with the result that I shall not again attempt to light a fire.

"I should add that the house is 10 feet by 7 feet, and 14 feet high; is in a sheltered position, with a wall on the north and west sides; is, moreover, glazed with sheets of glass three feet long. This is, of course, all in its favour; still there may be many similarly situated to myself, who may think a flue absolutely necessary to repel the frost, who would be gratified to know that it might be done by simpler and less expensive means.

"With a lower house than mine, and the addition

of an outer curtain to hang on at night, I feel certain I could repel the sharpest frost likely to occur in this latitude."

MANURE-WATER.

To make manure-water for choice plants, take an old cask, or any vessel holding five gallons, and fill it with rain-water. Put in a pound of guano and stir it well about, then close the vessel so as to exclude the air. When to be used, pour half-a-pint of the liquid into a gallon of rain-water, and use at first sparingly, gradually increasing the quantity as the plants come into a state of full growth, but never using it to young plants, or plants in a state of rest. It is well to stir up the earth in pots, occasionally, when the mould is dry, so as to prevent the growth of green moss on the surface, and allow the air to get to the roots of the plants; and in watering let the moisture penetrate quite through, till it comes out at the bottom of the pot. Never be content to moisten the surface merely, you thereby put the plant into a Tantalian lake. One good watering, to go right through, is worth a hundred baptismal sprinklings.

Beside the ordinary greenhouse plants, choice annuals may be raised indoors or in the greenhouse, for planting out in spring. Asters, stocks, and other half-hardy sorts, should always be raised in this way, or in heat if possible. Where you cannot raise them in heat, sow in pots in September, and you will have strong plants in May.

WARD'S CASES

Have increased the sphere of indoor gardening vastly. They are mostly used for the growth of ferns and succulent exotics. Those who love wild-flowers, may grow in them all the rarer sorts of oxalis, anemone, potentilla, primula, veronica, and other of the most delicate of our field plants. Instructions for the management of Ward's cases have been given in so many popular works, that it seems hardly necessary to enter upon the subject in detail here; and I call the reader's attention to the growth of the choicer British plants, because this kind of floriculture has been but little pursued, and it is one in which I have had considerable success. A selection from our British plants, moreover, would exhibit a collection of rare and exquisite beauty, and of kinds scarcely represented by any class of exotics.

CHAPTER IX.

PESTS OF THE GARDEN.

Weeds—Earthworms, Slugs, Snails, Wood-lice, and Green Fly—Pests of the Greenhouse—Insects generally.

THE first of pests is weeds, which may be kept in check by the use of the hoe, or may be drawn out in wet weather and thrown in a heap, or turned in at once to rot for manure. Where there is good gardening there will be few weeds; but if weeds are allowed to flower, the ground will soon be full of them. Neglect of this matter for a few weeks will spoil the garden for the season.

EARTHWORMS

Should not be recklessly destroyed; they are useful in keeping the soil light, and objectionable only when they increase too numerously. When they infest the roots of plants they are injurious, because they coat the fibres with slime; and to prevent this use a little soot in planting.

SLUGS AND SNAILS,

When they once get possession, are an intolerable nuisance. They are perpetually devouring the tender blades of young plants, and in spring, when green herbage is scarce, they will frequently destroy a patch of seedlings in a night. Were they content with leaves only, one might not complain, but they prefer eating through the stem close to the ground, so that the plant is literally cut away from the root, and hence lost for ever. There is nothing green that they will not eat ; I have had the greatest difficulty sometimes to preserve even a patch of stonecrop from their rapacity, though the plant is of a most acrid and nauseous character. They are particularly fond of rock-work, old wood, and will sometimes form colonies in the mould, which they burrow with holes like worms. It is the early bird which gets the worm, and the early gardener may have a similar chance with the slug ; for, on a damp morning, before the sun has much power, these gentry may be caught in plenty as they travel homeward from their nocturnal pastures. I have frequently used traps of cabbage-leaves, laid near the places they infest. They are fond of cabbage, and will doze half the day away underneath the leaves if they are stuck in damp corners, or tucked in between the old stems of ivy, and may thus be bagged in considerable quantity. It is a nasty kind

of sport, but very necessary for the good of the crop. Another slug trap is made by placing tiles, hollow side downwards, between the rows of plants, and taking them up every morning, when the slugs will be found underneath. If they infest a shady wall, place a ridge of unslackened lime close to the wall, and they will require no further attention that season. If they get under the surface of the mould, rake the surface round the plants, and destroy them as they turn up. In pits and frames, if there is any indication of slugs, turn up every pot, and examine each separately. Before carrying in pots which have been sunk out of doors, carefully look out for slugs, which, if once carried in doors, may make sad havoc before you can trap them.

WOOD-LICE

Often infest the borders, and are very fond of rock-work. The best plan to destroy them is to turn up the larger stones about mid-day, when the vermin will be found half asleep, closely huddled together. They are very nimble when aroused, and need a vigilant movement to destroy them. A little unslackened lime is a speedy medicine.

GREEN FLY.

Plants which get infested with aphides, or green fly, should be syringed with laurel water, or tobacco

water, or the stems moistened and sprinkled with Scotch snuff. Earwigs may be caught in traps made of bean-haulm, or straw thrust in handfuls between the stems of dahlias, and may be dropped into hot water as they are caught. The slug, however, is the chief pest of town gardens if we except cats. Against the first a perpetual war should be waged, but with the second the reader must deal as he pleases. If he considers them to be singing-birds, charming the dull ear of night with song, or takes the colder view that they are the property of his neighbours, he will perhaps let them transplant a choice favourite now and then, or dig little dimples among the fresh-sown seed. All I can say on the matter is, that cats in gardens are strictly vermin: and I don't, on my own account, respect any neighbour's cat when it commits trespass on my ground. Besides, what rabbits are to men, cats are to grape-vines, they nourish and they are wholesome.

PESTS OF THE GREENHOUSE.

If the plants in the greenhouse get infested with fly, a visitation to which roses are particularly subject, fumigate the house with tobacco smoke. The operation is easily performed. First put strong shag tobacco into a box connected with the pipe and nozzle of the fumigating bellows, and light it. Blow away until the house is full and you yourself

in danger of suffocation. Then beat a retreat, shut the door close, and poke the nozzle of the bellows through a hole, and blow away again till the house is so full of smoke that you can distinguish nothing in it. Be sure to perform it effectually, for if any part escapes you will have the work to do again. If you do not possess fumigating bellows, take a shovel full of hot charcoal, and put tobacco on it; but in this way it requires double the quantity of the potent weed. The object of filling the house well before you leave it is to drive the smoke into every corner, which you cannot do if the whole fumigation is done from without.

It frequently happens that only a few plants are affected; in this case there is no necessity to fumigate the whole. I have found it a very good plan with fairy roses to turn the pot upside down over a bowl of strong tobacco water, letting the stems soak for a few minutes, but taking care that the tobacco did not get to the mould. Of course it requires some care to prevent the whole plant, earth and all, from tumbling into the broth; but if the operation is nicely performed, and the plants well syringed with soft water afterwards, they will not be attacked again for a long while, and will not be in the least injured by the tobacco.

A "SETTLER" FOR INSECTS GENERALLY.

Mr. Kidd recommends the following as a

"settler" for insects in a garden :—“ When plants or flowers are attacked by insects, the following, which is in no respect injurious to any plant, will be found an effectual remedy :—To six quarts of soft water add half a pound of black soap, and a quarter of a pint of turpentine. Apply this to the stems with an ordinary paint brush.”

CHAPTER X.

**CLASSIFIED LISTS OF SELECTED PLANTS SUITABLE
FOR TOWN GARDENS.**

In the following lists the particulars and height, soil, colour, and season of blooming, and proper time for sowing, are added to the botanical and popular names. I am not aware that any work on gardening has hitherto supplied these requisites in the condensed and complete form of tables. It is evident, however, that the reader will at once obtain any information he may want, both as to choice of plants and their management and arrangement in the garden by reference to these, and at the same time save himself many an unnecessary search through the pages of books on gardening, and many an injudicious purchase both of plants and seeds.

All the plants included in these tables thrive in London, and in towns generally; and if treated according to the instructions already given, and the additional hints supplied by their classified arrangement, will always succeed. Of course, among the 150,000 plants now cultivated by gardeners, there are an immense number over and

above those included in these tables which will thrive in towns ; but as experiments of this sort have not been too numerously made, it is not possible to give anything like complete catalogues ; nor indeed are such catalogues desirable for ordinary purposes, seeing that the town gardener has enough of beauty and excellence left him, spite of the many choice things I have already advised him not to grow, to ensure an ample return for any amount of enthusiasm he may choose to expend in a recreation so simple, elevating, and refining as the culture of flowers.

In the selection of plants from the following lists, take particular note of the colour and height of each, and of the seasons in which they bloom ; attention to these points will ensure a good arrangement and a constant succession. Any well-known plants not included in these lists may be understood not to succeed in a smoky atmosphere.

ABBREVIATIONS.—*Com.* common garden mould ;
lmd. leaf mould ; *lo.* loam ; *ma.* manure from a well-rotted dungheap ; *p.* peat ; *s.* sand.—*bl.* blue ; *cr.* crimson ; *gr.* green ; *or.* orange ; *r.* red ; *sc.* scarlet ; *str.* striped ; *v.* violet ; *var.* variegated ; *yel.* yellow ; *lt.* light ; *dk.* dark ; *ro.* rose ; *wh.* white ; *pu.* purple ; *pi.* pink ; *li.* lilac ; *var.* various.

CLASSIFIED LISTS OF

I.—HARDY

Which may be sown in the open ground in September, to
of March to the

Botanical Name.	English Name.	Soil.
<i>Agrostis pulchella</i> - - -	Bent grass - - -	com.
„ <i>elegans</i> - - -	Do. do. - - -	„
<i>Alyssum maritimum</i> - - -	Mad Wort - - -	„
„ <i>saxatile</i> - - -	- - - - -	„
<i>Amaranthus caudatus</i> - -	Love lies bleeding -	lo. ma.
„ <i>hypocondriacus</i> -	Prince's Feather -	com.
<i>Anagallis indica</i> - - -	Indian Pimpernel -	„
„ <i>carnea</i> - - -	Blush do. - - -	„
<i>Antirrhinum triphyllum</i> -	Snapdragon - -	„
„ <i>heterophyllum</i> -	Variegated do. - -	„
<i>Argemone grandiflora</i> - -	Prickly Poppy - -	„
„ <i>Mexicana</i> - - -	Mexican do. - -	„
„ <i>alba</i> - - -	White do. - - -	„
„ <i>speciosa</i> - - -	Beautiful do. - -	„
<i>Athanasia annua</i> - - -	Annual Athanasia -	lmd.
<i>Bartonia aurea</i> - - -	Golden Bartonia -	lmd. ma.

SELECTED PLANTS.

ANNUALS:

stand the Winter, or at different sowings, from the middle second week in June.

Colour.	Time of Flowering.	Height	Remarks.
		ft. in.	
gr.	June	1 6	This grass is a delicate ornament for rock-work.
"	"	1 6	
wh.	"	0 6	Sometimes classed as a perennial, but usually perishes during winter in London.
yel.	"	0 6	It is very showy if sown in patches, or in vases to ornament a walk,
cr.	"	2 0	Needs a generous soil in town, and as it is pendulous, should not be set far back.
"	"	2 0	These are the only kinds of Amaranthus that bear smoke well. In the suburbs all the kinds will flourish.
bl.	"	1 0	
lt. pi.	"	0 6	The Pimpernel is not showy, but choice in character; for colour groupings it is of little use.
bl. & y.	"	1 0	
var.	"	1 0	A bold ornament.
wh.	"	2 0	
yel.	"	2 0	
wh.	"	2 6	Prickly Poppy is one of the most showy annuals, and should be frequently sown from February to the end of May.
var.	"	1 6	Whether arranged in separate colours or mixed, they have a fine effect.
yel.	April	0 9	
"	June	1 6	A very handsome American annual.

Botanical Name.	English Name.	Soil.
<i>Borkhausia lutea</i> -	Yellow Hawkweed	com.
" <i>argentea</i> -	Silvery do.	"
" <i>rubra</i> -	Crimson do.	"
<i>Briza gracilis</i> -	Slender quaking grass	"
" <i>maxima</i> -	Great do. do.	"
<i>Cacalia coccinea</i> -	Scarlet cacalia	"
" <i>aurea</i> -	Golden do. -	"
<i>Calendula hybrida</i> -	Great Cape Marigold	"
" <i>pluvialis</i> -	Small do. do.	"
" <i>stellata</i> -	Starry do. do.	"
" <i>officinalis</i> -	Common do.	"
<i>Calliopsis atrosanguinea</i> -	Blood-coloured Calliopsis	com. ma
" <i>atropurpurea</i> -	Purple do. -	"
" <i>bicolor</i> -	Two-coloured do.	"
" <i>Drummondii</i> -	Drummond's do.	"
" <i>grandiflora</i> -	Large-flowered do.	"
" <i>elegans picta</i> -	Painted do.	"
" <i>tinctoria</i> -	Dyer's do. -	"
" <i>nigra speciosa</i> -	New black do.	"
<i>Campanula Loreyi</i> -	Lorey's Campanula	lmd.
" <i>pentagonia</i> -	Five-angled do.	"
" <i>alba</i> -	White do. -	"
<i>Carthamus tinctorius</i> -	Saffron Starflower	2 p. 1 lo.
<i>Catananche lutea</i> -	Golden Catananche	com.
<i>Centranthus macrosiphon</i> -	Long-tubed Valerian	"
" <i>flore alba</i> -	White do. -	"
" <i>flore carneus</i> -	Flesh-coloured do.	"
<i>Cerinthe major</i> -	Large Honeywort	"
" <i>minor</i> -	Small do. -	"

Colour.	Time of Flower-ing.	Height.	Remarks.
		ft. in.	
yel.	May	1 6	
wh.	"	1 6	
cr.	"	1 6	
gr.	June	1 6	
"	"	1 6	
sc.	"	1 6	
yel.	"	1 6	
wh.	"	1 0	
wh. & p.	"	1 0	
yel.	"	1 0	
or.	"	1 0	
cr.	"	3 0	
pur.	"	3 0	
y. & red	"	3 0	
y. & br.	"	1 0	
"	"	2 0	
var.	"	2 0	
y. & cr.	"	2 0	
drk.	"	2 0	
bl. & wh.	May	1 0	
pur.	June	1 6	
wh.	"	1 0	
or.	"	3 0	
yel.	"	1 0	
red	"	0 9	
wh.	"	1 0	
fl.	"	1 0	
y. & pur.	July	3 0	
yel.	"	1 6	

The Hawkweeds are elegant plants, and from their slender habit need the support of sticks and strips of bass.

Suitable for rock-work or a sloping bank.

These are showy plants, to bloom them well the soil should not be poor.

The Calliopsis is a great favourite, and thrives well in town with a generous soil. Dress the ground where you plant them with well-rotted manure. Without special manuring they do well, but are too choice in character to be carelessly grown. There are many sorts beside those here specified, and all are effective in the borders.

The annual Campanulas are light and graceful in character, scarcely showy, they need a sandy soil, or well-sifted leaf-mould.

The Valerian is a strong annual and blooms abundantly anywhere.

This plant is usually sown with borage by those who keep bees.

Botanical Name.	English Name.	Soil.
<i>Centaurea Americana</i> -	American Centaury -	com.
" <i>cydnus major</i> -	Large blue do. -	"
" <i>minor</i> -	Small do. -	"
" <i>depressa</i> -	Dwarf do. -	"
" <i>splendens</i> -	Splendid do. -	"
" <i>moschata</i> -	Sweet Sultan do. -	"
" <i>alba</i> -	White do. -	"
<i>Chrysanthemum aureum</i> -	New golden Chrysanthemum -	"
" <i>albo pleno</i> -	Double white do. -	"
" <i>luteum</i> -	Yellow do. -	"
" <i>speciosum</i> -	Showy do. -	"
" <i>tricolor</i> -	Three-coloured do. -	"
<i>Clarkia elegans</i> -	Elegant Clarkia -	"
" <i>cærulea</i> -	Blue do. -	"
" <i>rosa alba</i> -	Rosy white do. -	"
" <i>grandiflora</i> -	Large-flowered do. -	"
" <i>pulchella</i> -	Beautiful do. -	"
" <i>atropurpurea</i> -	Purple do. -	"
<i>Collomia coccinea</i> -	Scarlet Collomia -	com. ma
" <i>grandiflora</i> -	Large flowered do. -	"
<i>Convolvulus tricolor</i> -	Minor Convolvulus -	com.
" <i>atropurpurea</i> -	New dark do. -	"
" <i>striatus</i> -	Striped do. -	"
" <i>major</i> -	Great Bindweed do. -	"
<i>Cotula aurea</i> -	Golden Cotula -	"

Colour.	Time of Flower-ing.	Height.	Remarks.
		ft. in.	
red	July	2 0	
bl.	"	3 0	
"	"	2 0	
"	"	1 0	
red	"	2 0	
pur.	June	2 0	
wh.	"	2 0	
yel.	June	1 6	All these are elegant and indispensable ornaments. I have usually raised them within doors, and found the plants stronger than those sown in the ordinary way.
wh.	"	1 6	
yel.	"	1 6	
"	"	1 6	
str.	"	1 6	
lilac	"	1 6	
bl.	"	1 6	
r. & w.	"	1 6	
red	"	1 6	
rose	"	1 6	
pur.	"	1 6	
sc.	July	1 0	
cr.	"	2 0	
bl.	June	1 6	
dk. pu.	"	4 0	The Convolvulus does well in town. The Major Bindweed is a magnificent flower, and sets dirt, smoke, and darkness, at defiance. It is better suited to town than any of the other varieties, and will thrive under the worst of circumstances. It is too fine a plant, however, to be neglected, and should have a generous soil and careful training.
str.	"	6 0	
var.	"	10 0	
sl.	"	3 5	

Botanical Name.	English Name.	Soil.
<i>Collinsia bicolor</i> - - -	Two-coloured Collinaia	com.
„ <i>grandiflora</i> - - -	Large-flowered do.	„
„ <i>heterophylla</i> - - -	Various-leaved do.	„
„ <i>verna</i> - - -	Spring do. - - -	„
<i>Cyanus major</i> - - -	Large-flowered Cyanus	„
„ <i>minor</i> - - -	Small do. - - -	„
<i>Delphinium ajacis</i> - - -	Rocket Larkspur	„
„ <i>plena nana</i> - - -	Double dwarf - - -	„
„ „ <i>elata</i> - - -	Double tall do. - - -	„
<i>Echium violaceum</i> - - -	Viper's Bugloss - - -	„
<i>Eschscholtzia Californica</i> - -	Californian Eschscholtzia	„
„ <i>compacta</i> - - -	Neat do. - - -	„
„ <i>crocea</i> - - -	Orange do. - - -	„
„ <i>alba nova</i> - - -	New white - - -	„
<i>Eucharidium concinnum</i> - - -	Neat Eucharidium - - -	„
<i>Eutoca Menziesii</i> - - -	Menzies' Eutoca - - -	p. lo. & s.
„ <i>multiflora</i> - - -	Many-flowered do. - - -	„
„ <i>viscida</i> - - -	Clammy do. - - -	com.
„ <i>Wrangeliana</i> - - -	Wrangel's do. - - -	„
<i>Fedia cornucopisæ</i> - - -	Horn-flowered Fedia - - -	„
„ <i>dentata</i> - - -	Tooth-leaved do. - - -	„

Colour.	Time of Flowering.	Height.	Remarks.
pu. & wh.	Apr. to	1 6	The Collinsias suit admirably for town.
pu & bl.	Oct.	1 4	The two-coloured may be sown as late as
wh. & r.	June	1 6	the first week in June for autumn bloom-
bl. li.	"	1 6	ing.
bl.	July	2 6	
var.	"	2 0	
var.	June	1 0	I cannot strongly recommend the Lark-
"	"	1 0	spur. I have found it run off poor unless
"	"	1 0	at some distance from town. So old a
			favourite can scarcely be left out of the
			list, though its success in a smoky air is
			very doubtful.
vio.	July	2 4	
yel.	May	1 0	All the Californian plants recently in-
"	"	1 0	troduced by the London Horticultural
or.	"	1 0	Society are very beautiful, hardy, and
wh.	"	1 0	suited to the atmosphere of towns. They
			should be sown in September, in poor soil,
			and in a sheltered situation. The Esch-
			scholtzia is one of the finest of these plants.
			Nemophilas, Collinsias, Clarkias, Gilias,
			Phacelia, Eutoca, and Leptosiphon, are
			others of this class of plants, and need
			similar culture.
pur.	June	1 0	
vio.	"	1 0	Very beautiful if properly cultivated.
pink	"	1 0	The first two should be grown in a compost
bl.	"	1 6	of two parts peat, one part loam, and one
vio.	"	1 0	sand. The other two flourish in common
red	"	1 0	soil. These are Californian plants.
yel.	"	0 6	

Botanical Name.	English Name.	Soil.
<i>Gilia achillæfolia</i> - - -	Milfoil-leaved Gilia - -	com.
„ <i>capitata</i> - - -	Headed do. - -	„
„ <i>alba</i> - - -	White do. - -	„
„ <i>splendens</i> - - -	Splendid do. - -	„
„ <i>tricolor</i> - - -	Three coloured do. - -	„
<i>Glaucium phænicium</i> - - -	Beautiful Horn Poppy -	„
„ <i>rubrum</i> - - -	Crimson - -	„
<i>Godetia bifrons</i> - - -	Two lipped Godetia - -	„
„ <i>lepidia</i> - - -	Pretty do. - -	„
„ <i>Lindleyana</i> - - -	Lindley's do. - -	„
„ <i>purpurea</i> - - -	Purple do. - -	„
„ <i>Romanzovii</i> - - -	Romanzow's do. - -	„
„ <i>tenuifolia</i> - - -	Small-leaved - -	„
<i>Gysophilla elegans</i> - - -	Elegant Gysophilla - -	„
„ <i>paniculata</i> - - -	Panicked do. - -	„
<i>Helianthus elatum</i> - - -	Tall Sunflower - -	„
„ <i>nanus</i> - - -	Dwarf do. - -	„
„ <i>Californicus</i> - - -	Californian do. - -	„
<i>Heliophilla araboidea</i> - - -	Arabia-like Heliophilla - -	„
<i>Heliotropum indicum</i> - - -	Indian Turn Sole - -	„
<i>Hibiscus Africanus</i> - - -	African Hibiscus - -	„
„ <i>major</i> - - -	Large-flowered do. - -	„
„ <i>Cameronii</i> - - -	Cameron's do. - -	„
„ <i>speciosus</i> - - -	Superb do. - -	„
„ <i>Richardsonii</i> - - -	Richardson's rough-leaved do. - -	„

Colour.	Time of Flowering.	Height.	Remarks.
		ft. in.	
bl.	May	1 0	
"	"	2 0	
wh.	"	2 0	
rose	"	1 0	
b. w. & y.	"	0 6	Poor soil suits them best.
pur.	June	2 0	
cr.	"	2 0	The Horn Poppies are both curious and ornamental, they have the best effect mixed. The foliage is as elegant as the flower.
p. cr.	"	1 6	
lilac	"	1 6	
pur.	"	1 0	
"	"	1 6	
b. pur.	"	1 6	The Godetias are showy plants, and bloom well in the worst situations. There are twenty or more varieties, all of great merit. Those we have named are the sorts most in request.
vio.	"	1 0	
wh. pi.	"	1 0	
wh.	"	1 0	
yel.	May	7 0	
"	"	3 0	
"	"	4 0	The Helianthus is suited only for gardens of considerable size; they are too rampant and coarse in growth for small spaces. They serve well as screens to cover unsightly corners, when there is not time for the growth of shrubs, or while climbers are coming on.
bl.	May	0 6	
"	June	1 6	
bk. & wh.	July	1 6	
"	"	1 6	
rosy	"	2 0	There are many other varieties of this favourite flower. They deserve a good place, and thrive with very little attention.
sc.	"	2 0	
yel.	June	2 0	

Botanical Name.	English Name.	Soil.
<i>Hieracium grandiflora</i> - - -	Large-flowered Hawk-weed	com. ma
" <i>purpureum</i> - - -	Purple do. - - -	com.
" <i>argentea</i> - - -	Silvery do. - - -	"
" <i>album</i> - - -	White do. - - -	"
" <i>luteum</i> - - -	Yellow do. - - -	"
<i>Hyoscyamus pictus</i> - - -	Painted Henbane	"
<i>Iberis coccinea</i> - - -	Candytuft - - -	"
" <i>coronaria alba</i> - - -	White rocket do. - - -	"
" <i>umbellata</i> - - -	Normandy - - -	"
" <i>sanguinea</i> - - -	Blood-coloured do. - - -	"
<i>Impatiens noli-me-tangere</i> - - -	Touch-me-not - - -	rich ma
<i>Ipomoea Burridgii</i> - - -	Burridge's New Bindweed	p. lo.
" <i>atropurpurea</i> - - -	Indian purple do. - - -	"
" <i>rosea</i> - - -	Rose-coloured - - -	"
" <i>Dicksonii</i> - - -	Dickson's do. - - -	"
<i>Lathyrus odoratus</i> - - -	Sweet Pea - - -	com.
" <i>albus</i> - - -	White do. - - -	"
" <i>coccinea</i> - - -	Scarlet do. - - -	"
" <i>nigra</i> - - -	Black do. - - -	"
" <i>purpurea major</i> - - -	Large new purple - - -	"
<i>Limnanthes Douglassii</i> - - -	Douglass's Limnanthes	"
" <i>grandiflora</i> - - -	Large-flowered do. - - -	"

Colour.	Time of Flowering.	Height.	Remarks.
yel.	July	ft. in. 2 0	The Hawkweeds are fragile in character, and need the support of sticks to keep them from rambling. The blossoms are very neatly formed stars, and look attractive in the borders. The first in the list is strictly a perennial, but may be treated as an annual.
pur.	"	3 0	
sil.	"	1 0	
wh.	"	3 0	
yel.	"	1 0	
var.	May	3 0	The Henbane is such an elegant plant that I would always attempt its culture, though it bears smoke with great impatience, and only succeeds in a comparatively pure air.
sc.	"	1 0	Established favourites, all of which
wh.	"	1 0	thrive in towns. The sorts are usually
pur.	"	1 0	mixed.
cr.	"	1 0	
y. red	July	2 0	The Glanduligera and Tricornis are both good, but are usually classed as half-hardy. I have, however, raised them both without heat.
cr.	June	6 0	
pur.	July	5 0	This elegant climber will amply repay any amount of care bestowed upon it. It
rose	"	10 0	should be grown in one part peat and two
r. & b.	"	6 0	loam. The half-hardy sorts must be raised in doors. They are usually mixed.
var.	June	5 0	Should be grown in clumps and sup-
wh.	"	5 0	ported with sticks, or trained up trellises.
sc.	"	5 0	They are usually mixed, but look well if
bk.	"	5 0	kept in distinct colours.
pur.	"	5 0	
yel.	"	0 6	
y. & w.	"	0 6	

Botanical Name.	English Name.	Soil.
<i>Lavatera trimestris</i> - - -	Annual Mallow - - -	com.
" <i>flore albo</i> - - -	White do. - - -	"
" <i>grandiflora</i> - - -	Large-flowered do. - - -	"
<i>Leptosiphon albus</i> - - -	White Leptosiphon - - -	"
" <i>androsaceus</i> - - -	Androsace-like do. - - -	"
" <i>densiflorus</i> - - -	Cluster-flowered do. - - -	"
<i>Linaria alpina</i> - - -	Alpine Toadflax - - -	"
" <i>Perezii</i> - - -	Least do. - - -	"
" <i>senecioides</i> - - -	Groundsel-like do. - - -	"
" <i>triphylla</i> - - -	Three-leaved do. - - -	"
<i>Linum (various)</i> - - -	Flax - - -	"
<i>Loasa aurantiaca</i> - - -	Orange Loasa - - -	"
" <i>Herbertii</i> - - -	Herbert's do. - - -	"
" <i>Pentlandica</i> - - -	Pentland's do. - - -	"
" <i>tricolor</i> - - -	Three coloured - - -	"
<i>Lobelia gracilis</i> - - -	Slender cardinal flower - - -	lmd, ma.
" <i>alba</i> - - -	White do. do. - - -	"
" <i>ramosa</i> - - -	Branching do. - - -	"
" <i>rosea</i> - - -	Rosy do. - - -	"
<i>Lopezia coronata</i> - - -	Crowned Lopezia - - -	com.
" <i>racemosa</i> - - -	Branching do. - - -	"
<i>Lupinus albus</i> - - -	White Lupin - - -	"
" <i>Cruikshankii</i> - - -	Cruikshank's do. - - -	"
" <i>elegans</i> - - -	Elegant do. - - -	"
" <i>lutea</i> - - -	Yellow do. - - -	"
" <i>mutabilis</i> - - -	Changeable do. - - -	"
" <i>nanus</i> - - -	Dwarf - - -	"

Colour.	Time of Flowering.	Height.	Remarks.
pi.	June	ft. in.	Very elegant.
wh.	"	3 0	
"	"	2 0	
"	"	2 0	
w. & li.	"	1 0	These are Californian plants, very elegant, and easy of culture.
rose	"	1 0	
bl.	July	1 0	These elegant plants are very useful in rock-work, the first especially. They want careful nursing, and in some localities will not flourish at all; they like a light soil and a strong light. <i>Linaria alpinus</i> , when once established, lasts many years.
yel.	"	1 0	
"	"	1 0	
y. & p.	"	1 0	
var.	July	3 0	Several sorts of Flax are grown in gardens; none of them are showy, and none bear town well.
or.	June	4 0	All the Loasas are tender, and need nursing in the early part of the season.
pur.	"	4 0	They are very handsome, and curiously contrasted.
wh.	"	2 0	
var.	"	2 0	
bl.	May	0 6	These elegant favourites are indispensable. The perennial sorts are more showy than the annuals, and none of them need the best situations. They want rich soil.
wh.	"	0 6	
bl.	"	0 6	
rose	"	0 6	
pi.	June	1 6	Tender, and needing shelter in late seasons.
red	"	0 0	
wh.	May	2 6	Old favourites. The yellow (<i>luteus</i>) is very sweet scented, and the neatest of all
wh. & p.	"	3 0	
bl. & r.	"	3 0	
yel.	"	1 6	
var.	"	3 0	
bl.	"	1 0	
			<i>L. luteus</i> is most suitable for town.

Botanical Name.	English Name.	Soil.
<i>Lychnis nana</i> - - -	Dwarf Lychnis - - -	com.
„ <i>rosea</i> - - -	Rosy do. - - -	„
<i>Malcomia maritima</i> - - -	Virginian Stock - - -	„
„ <i>alba</i> - - -	White do. - - -	„
 „	 „	 „
<i>Malope albiflora</i> - - -	White Malope - - -	com. ma.
„ <i>grandiflora</i> - - -	Large-flowered do. - - -	„
„ <i>trifida</i> - - -	Three-leaved do. - - -	„
 „	 „	 „
<i>Malva crispa</i> - - -	Crisped Mallow - - -	com.
„ <i>maritima</i> - - -	Sea-side do. - - -	„
„ <i>zebrina</i> - - -	Striped do. - - -	„
<i>Martynia annua</i> - - -	Annual Martynia - - -	ma.
„ <i>fragrans</i> - - -	Fragrant do. - - -	„
„ <i>proboscidea</i> - - -	Proboscis-like do. - - -	„
 „	 „	 „
<i>Nemesia versicolor</i> - - -	Changeable Nemesia - - -	com.
„ <i>floribunda</i> - - -	Many-flowered do. - - -	„
<i>Nemophila aurita</i> - - -	Purple Nemophila - - -	„
„ <i>atomaria</i> - - -	White-spotted do. - - -	„
„ <i>alba</i> - - -	Pure white do. - - -	„
„ <i>striata</i> - - -	Striped do. - - -	„
„ <i>insignis</i> - - -	Beautiful do. - - -	„
„ <i>grandiflora</i> - - -	Large-flowered do. - - -	„
 „	 „	 „
<i>Nigella Hispanica</i> - - -	Spanish Nigella - - -	ma.
„ <i>Romana</i> - - -	Roman do. - - -	„
„ <i>damascena</i> fl. pl.	Double do. - - -	„

Colour.	Time of Flowering.	Height.	Remarks.
pi. rose	May	ft. in. 0 6 1 0	Unnecessary where Verbenas are grown for bedding out.
lilac wh.	"	0 6 0 6	Grows anywhere, and makes a good temporary edging. If transplanted before flower-buds appear, the plants put out numerous shoots and become very shrubby, blooming till frost cuts them off. There are few, however, who will take so much trouble with so common a plant.
wh. pur. dk. red	"	2 0 2 0 2 0	In London it is difficult to raise the Malope; it is best to obtain sufficient plants from the gardener, or raise them under cover in generous soil.
wh. lilac ii. & wh.	"	2 0 2 0 2 0	Very showy, and last till October.
wh. dk. pu. lilac	June	2 0 2 0 2 0	The flowers are beautifully bell-shaped, and the seed-pods curiously formed. It is rather tender, but bears ordinary seasons. It needs very rich soil.
var. w. & y.	"	3 0 3 0	
pu. w. sp.	"	2 0 2 6	These showy Californian flowers deserve a place in every garden; they have a cheerful tone in the borders, and require little or no attention. The sorts are very numerous. They should not be mixed.
wh. str. bl.	"	2 0 2 0 2 0	
"	July	1 0	The Nigella is a very handsome annual, and requires rich mould. In very close districts it will not succeed.
bl. wh.	"	1 0	
"	"	1 0	

Botanical Name.	English Name.	Soil.
<i>Nolana atriplicifolia</i> - - -	Atriplex-leaved Nolana	com.
" <i>paradoxa</i> - - -	Doubtful do. - - -	"
" <i>prostrata</i> - - -	Creeping do. - - -	"
<i>Nymphaea alba</i> - - -	Whitewater Lily - - -	p. s.
<i>Oenothera bifrons</i> - - -	Two-faced Evening Primrose	com.
" <i>densiflora</i> - - -	Close-flowered do. - - -	"
" <i>Lindleyii</i> - - -		
<i>Papaver amoenum</i> - - -	Beautiful Poppy - - -	"
" <i>frimbriata</i> - - -	Fringed do. - - -	"
" <i>nudicaule</i> - - -	Naked stem do. - - -	"
" <i>rhæsus</i> - - -	Corn do. - - -	"
" <i>somnifera</i> - - -	Opium do. - - -	"
" <i>orientalis</i> - - -	Oriental do. - - -	"
" <i>nigra</i> - - -	Black do. - - -	"
<i>Platystemon Californicum</i> -	Californian Platystemon	"
<i>Prismatocarpus speculum</i> -	Venus' Looking-glass -	"
<i>Reseda odorata</i> - - -	Sweet Mignonette - - -	"
" <i>erecta</i> - - -	Tree do. - - -	"
<i>Römeria hybrida</i> - - -	Hybrid Horn Poppy - - -	"
<i>Salvia bicolor</i> - - -	Two-coloured Sage	sand.m.

Colour.	Time of Flowering.	Height.	Remarks.
bl.	June	ft. in.	
bl.		1 0	Very impatient of smoke, and only succeeds well in the suburbs. It is an established favourite. The seeds are curious.
bl.	"	1 0	
wh.	May	1 0	Very handsome in a pond of gold-fish, and thrives in London if planted in a bottom of peat and sand. The roots can be purchased of the florists for a shilling each.
yel.	June	1 6	All the varieties of Evening Primrose are suited for town gardens. The common sorts are not very handsome.
pur.	"	1 0	
var.	"	2 0	
w. & r.	"	2 0	All the Poppy tribe are highly ornamental, and easy of culture; they generally flower stronger if transplanted when they have four leaves each. They require plenty of sun. They should never be forgotten in a list of spring seeds: they bear town smoke well. The Oriental is a gorgeous flower.
yel.	"	1 6	
var.	"	1 0	
wh.	"	3 0	
sc.	"	3 0	
bk.	"	2 0	
yel.	"	1 0	
pur.	May	0 6	A curious plant; but only thrives at some distance from town, except it be raised indoors. There are several sorts, but <i>P. speculum</i> is the only one which the town gardener should attempt.
straw	"	1 0	
"	"	2 0	
pur.	"	1 6	
bl. & w.	July	3 0	Shrubby and handsome. The soil should be light and rich.

Botanical Name.	English Name.	Soil.
<i>Saponaria annua</i> - - -	Annual Soapwort	com. m
" <i>multiflora</i> - - -	Many-flowered do.	"
<i>Scabiosa stellata</i> - - -	Starry Scabious	com.
" <i>grandiflora</i> - - -	Large-flowered do.	"
" <i>elegans</i> - - -	Elegant do.	"
<i>Schizanthus humilis</i> - - -	Dwarf Schizanthus	lmd. m
" <i>pinnatus</i> - - -	Pinnate do.	"
" <i>gracilis</i> - - -	New Slender do.	"
<i>Senecio elegans</i> - - -	Elegant Jacobaea	rich m
" fl. pl. <i>alba</i> - - -	Double-white do.	"
" <i>rubra</i> - - -	Double-red do.	"
<i>Silene fulgens</i> - - -	Bright Catchfly	com.
" <i>grandiflora</i> - - -	Large-flowered do.	"
" <i>pieta</i> - - -	Painted do.	"
" <i>rubella</i> - - -	Small red do.	"
<i>Tagetes erecta</i> - - -	African Marigold	"
" <i>humilis</i> - - -	Dwarf do.	"
" <i>patula grandis</i> - - -	Tall French do.	"
<i>Tropaeolum majus</i> - - -	Great Nasturtium	"
" <i>minus</i> - - -	Dwarf do.	"
" <i>atrosanguineum</i> - - -	Blood-coloured	"
" <i>peregrinum</i> - - -	Canary-bird-flower	rich m
" <i>Shillingii</i> - - -	Shilling's Tropaeolum	"
<i>Verbena erinoides</i> - - -	Erinus-like Verbena	sa. lmd
<i>Xeranthemum album</i> - - -	White Everlasting	com.
" <i>aureum</i> - - -	Golden do.	"
" <i>purpureum</i> - - -	Purple do.	"

colour.	Time of Flowering.	Height.	Remarks.
red.	„	ft. in.	Rather delicate, and needs rich mould.
„	„	0 6	
li.	„	2 0	All the Scabious tribe thrive in town.
pur.	June	3 0	Some of the German varieties are very fine.
li. pu.	„	3 0	
& pu.	May	1 0	Rather tender, but may be raised out of doors in warm seasons.
„	„	1 6	
li. & r.	„	1 0	
pur.	June	2 0	
wh.	„	1 6	
cr.	„	1 0	
red	„	2 0	There are many other sorts, all worthy of attention.
„	„	1 6	
li.	„	2. 0	
flesh	„	0 6	
yel.	„	2 0	Showy, and bear smoke well.
„	„	1 0	
str.	„	1 6	
br. & y.	„	8 0	Well known and beautiful climbers.
„	„	1 0	Admirable as a cheap and quick screen to cover a wall, trellis, or unsightly fence.
dk. cr.	„	8 0	The green seeds make an excellent pickle.
yel.	„	12 0	
str.	„	5 0	
pl.	July	0 6	This pretty annual Verbena suits well for town.
wh.	June	2 0	
yel.	„	2 0	
pur.	„	2 0	

II.—HALF-HARDY

Which must be sown in heat in February or March, or
the second

Botanical Name.	English Name.			Soil.
<i>Amaranthus speciosus</i> - - -	Beautiful Amaranthus	-	-	com.
<i>Aster chinensis</i> - - -	Chinese Aster	-	-	rich mo.
" <i>Germanica</i> - - -	German do.	-	-	"
" <i>globosus novis</i> - - -	New Globe do.	-	-	"
" <i>pyramidalis</i> - - -	Pyramidal do.	-	-	"
" <i>tenellus</i> - - -	Slender do.	-	-	"
" <i>turcensis</i> - - -	Double Turkey do.	-	-	"
" <i>albus</i> - - -	White do.	-	-	"
" <i>roseus</i> - - -	Rosy do.	-	-	"
 <i>Balsamina hortensis</i> - - -	Garden Balsam	-	-	lo. ma.
" <i>camelliæflora</i> - - -	Camellia-like do.	-	-	and lmd
" <i>luted</i> - - -	Pale yellow do.	-	-	"
" <i>nana</i> - - -	Dwarf do.	-	-	"
" <i>rosæ flora</i> - - -	Rose-flowered do.	-	-	"
" <i>Germanicus</i> - - -	German do.	-	-	"
" <i>punctata</i> - - -	Spotted do.	-	-	"

ANNUALS;

the open ground, from the first week in May to week in June.

colour.	Time of Flowering.	Height.	Remarks.
pur.	June	ft. in. 2 0	Rather delicate, and succeeds best in suburban districts.
var.	Aug.	1 6	Asters are of all colours, and make fine beds by themselves, if carefully grown, and the colours well mixed. They are wonderfully improved by careful nursing, and
"	"	1 6	
"	"	1 0	
"	"	1 6	
bl.	"	1 0	some of the sorts grow to an immense size. I have grown French double-quilled
red	July	1 0	
wh.	"	1 0	Asters as large as Dahlias. They bear the
rose	"	1 0	smokiest atmosphere with admirable patience. The soil for them can hardly be too rich. Treat as directed for Balsams.
var.	June	2 0	Balsams cannot be raised so as to produce fine plants without the aid of heat.
"	"	2 0	
yel.	"	2 0	Sow in a hot bed; as soon as they are up
"	"	1 0	prick them out round the edges of pots,
rose	"	2 0	and keep them in sufficient heat to allow
var.	"	2 0	air in the middle of the day. When they
"	"	2 0	have four leaves each, pot them in 3in. pots, putting the seed leaves an inch below the soil. Keep re-potting as they make root till they are too large for the hot-bed, and then treat as greenhouse plants. They may be planted out in beds in June.

Botanical Name.	English Name.	Soil.
<i>Blumenbachia insignis</i> -	Pretty Blumenbachia -	rich mo
<i>Brachycome iberidifolia</i> -	Iberis-leaf Brachycome	com.
" <i>alba</i> - -	White do. - - -	"
<i>Browallia elata cærulea</i> -	Tall blue Browallia	lo. & lmd
" <i>alba</i> - -	White do. - - -	"
" <i>grandiflora</i> -	Large-flowered do.	"
<i>Calandrina discolor</i> -	Two-coloured Calandrina	rich mo
" <i>speciosa</i> -	Showy do. - - -	"
" <i>grandiflora</i> -	Large-flowered do.	"
" <i>glandulosa</i> -	Glandular do.	"
<i>Calceolaria pinnata</i> -	Winged Ladies' Slipper	lo. & lmd
<i>Capsicum annum</i> - -	Annual Capsicum	rich mo.
<i>Chænostoma polyanthum</i> -	Many-flowered Chenostoma	lo. & lmd
" <i>fastigiatum</i> -	Bunchy do. - - -	"
" <i>viscosum</i> -	Viscid do. - - -	"
<i>Cleome grandiflora</i> -	Large-flowering Cleome	lo. ma
" <i>spinosa</i> -	Spiny do. - - -	and p.
" <i>pentaphylla</i> -	Five-leaved do. - - -	"
<i>Clintonia elegans</i> -	Elegant Clintonia	rich mo.
" <i>pulchella</i> -	Beautiful do. - - -	"
" <i>alba</i> -	White do. - - -	"

Colour.	Time of Flowering.	Height.	Remarks.
wh. & y.	June	0 6	A pretty American annual, with curiously twisted seeds.
wh. & bl.	"	1 6	
wh.	"	1 6	
pur.	"	2 0	Very elegant plants, and requiring but little attention. They do well in May, in the open air, in a mixture of loam and leaf mould.
wh.	"	2 0	
bl.	"	2 0	
pur. & r.	"	1 6	Very handsome, but liable to be destroyed by the least frost or damp. The foliage is curious and beautiful.
cr.	"	1 0	
dk. rose	"	2 0	
pur.	"	1 0	
yel.	May	1 6	Showy and elegant. Can be raised without heat.
wh.	June	1 6	Beautiful and useful. One plant will supply sufficient Capsicums for flavouring pickles for a family for twelve months.
li. & y.	May	1 0	Impatient of smoke, dust, and damp.
pl.	"	1 0	
pl.	"	1 0	
rose	June	2 6	Very handsome, and with curiously-formed stamens and pistils. They will not thrive in common mould, and need a compost of two parts loam to one part manure and one peat. They are rather troublesome to cultivate, but worth the attention of those who have leisure.
wh.	"	2 6	
"	"	2 0	
bl.	"	0 6	A beautiful member of the Lobelia family. The construction of its seed-pod is curious.
bl. & w.	"	0 6	
wh.	"	0 6	

Botanical Name.	English Name.	Soil.
<i>Datura ceratocaula</i> - -	Horn-stemmed Thorn-apple	rich mo.
„ <i>fastuosa</i> fl. pl. - -	Double white do.	„
„ <i>purpurea</i> fl. pl. - -	Double purple do.	„
<i>Eichrysum album</i> - -	White Everlasting	com.
„ <i>bracteatum</i> - -	Golden do.	„
„ <i>macranthum</i> - -	Large-flowered do.	„
„ <i>monstrosum</i> - -	Monstrous do.	„
<i>Hebenstreitia dentata</i> - -	Tooth-leaved Hebenstreitia	p. lo.
<i>Impatiens glanduligera</i> - -	Glandular Touch-me-not	rich mo.
„ <i>tricornis</i> - -	Horned do.	„
<i>Ipomæa rubro-cærulea</i> - -	Bindweed	p. & lo.
„ <i>hederacea</i> - -	Ivy-like do.	„
„ <i>nil</i> - -	Blue do.	„
<i>Lobelia heterophylla</i> - -	Branching Lobelia	rich mo.
<i>Mathiola annua</i> - -	Ten-week Stock	„
„ <i>Germanica</i> - -	German do.	„
„ <i>alba major</i> - -	Large white do.	„
„ <i>coccinea</i> - -	Scarlet do.	„
„ <i>purpurea</i> - -	Purple do.	„
„ <i>autumnalis</i> - -	Autumn-blown do.	„
„ <i>glabratæ</i> - -	Wallflower leafed do.	„
„ <i>imperialis</i> - -	Emperor do.	„
<i>Mesembryanthemum album</i> - -	White Fig Marigold	rich mo.
„ <i>crystallinum</i>	Ice-plant	„

Colour.	Time of Flowering.	Height.	Remarks.
str.	June	2 0	Handsome, and somewhat hardy. I have seen it grown in great perfection in London.
wh.	"	2 0	
pur.	"	2 0	
wh.	"	2 0	
yel.	"	2 0	
pi.	"	2 0	
yel.	"	2 0	
wh.	July	2 0	
pur.	June	4 0	Comparatively hardy.
"	"	4 0	
bl. & r.	"	6 0	Comparatively hardy. There are many sorts besides those named in these lists.
bl.	"	5 0	All do well in town, and are admirable for trellises.
"	"	6 0	
"	May	1 6	An indispensable ornament.
var.	"	1 6	Treat as directed for Asters and Balsams.
"	"	1 6	Every kind of Stock does well in town,
wh.	"	1 6	but all require nursing in rich soil. Fre-
sc.	"	1 6	
pur.	"	1 6	strengthen the blooms. They are fre-
var.	Aug.	1 6	quently sown mixed, but are to be preferred
"	May	1 0	in colours. The autumn blooming sorts
"	"	2 0	should be sown not later than the first
			week in March. Other sorts in September
			and March.
wh.	Aug.	0 6	These established favourites make pretty
"	"	0 4	window ornaments, and are attractive from
			their curious structure, as well as for their
			intrinsic beauty.

Botanical Name.	English Name.	Soil.
<i>Nicotiana longiflora</i> - -	Long-flowered Tobacco	rich mo.
" <i>odorata</i> - -	Scented do. - -	"
" <i>Virginica</i> - -	Virginian do. - -	"
<i>Phlox Drummondii</i> - -	Drummond's Phlox	"
" <i>Leopoldiniana</i> - -	Leopold's do. - -	"
" <i>oculata</i> - -	Bright-eyed do. - -	"
" <i>coccinea</i> - -	Scarlet do. - -	"
<i>Portulaca alba striata</i> - -	Striped Purslane - -	"
" <i>splendens</i> - -	Splendid do. - -	"
" <i>Thellusonii</i> - -	Thelluson's do. - -	"
<i>Salpiglossa atropurpurea</i> - -	Purple Salpiglossa	"
<i>Schizanthus Priestii</i> - -	Priest's Schizanthus	"
<i>Solanum ovigerum album</i> - -	White Egg-plant	"
" <i>rubrum</i> - -	Purple do. - -	"
<i>Trachymene cærulea</i> - -	Blue Trachymene	lo. sa. & p.
<i>Zinnia elegans alba</i> - -	True white Zinnia	rich mo.
" <i>coccinea</i> - -	Scarlet do. - -	"
" <i>grandiflora</i> - -	Large-flowered do. - -	"
" <i>lutea</i> - -	Yellow do. - -	"
" <i>violacea</i> - -	Violet-flowered do. - -	"

Colour.	Time of Flowering.	Height.	Remarks.
yel.	July	ft. in.	
pi.	"	4 0	
"	"	4 0	
		4 0	The Tobacco plant may be grown very successfully in London. I have had very fine specimens grown entirely in the open air, which have flowered abundantly, and ripened seed. It is somewhat coarse in appearance, and only suitable for the curious.
var.	June	2 0	
cr & wh.	July	1 0	
wh. & r.	"	1 0	
sc.	"	1 0	
w. & r.	"	1 0	There are about thirty fine sorts of Drummond's Phlox; they are exquisitely beautiful, and easy of culture. They make fine window flowers.
cr.	"	1 0	
sc.	"	1 0	
dk. pur.	June	2 0	Very showy, but tender.
wh.	May	1 6	
"	June	2 0	
pur.	"	2 0	Easily adapts itself to towns, but needs a rich soil. Treat as directed for Asters, Balsams, &c.
bl.	"	2 0	
wh.	July	1 6	Indispensable favourites. Treat as directed for Asters and Stocks. They
sc.	"	1 6	revel in a rich soil, and continue in bloom
"	"	1 6	till the end of autumn.
yel.	"	1 6	
vio.	"	1 6	

III.—HARDY BIENNIAL

Which may be sown in the open ground from February
Winter in

Botanical Name.	English Name.	Soil.
<i>Aconitum japonicum</i> - - -	Japanese Monkhood - -	com.
“ <i>Chinense</i> - - -	Chinese do. - -	”
“ <i>variegatum</i> - - -	Variegated do. - -	”
<i>Agapanthus umbellatus</i> - - -	African Lily - -	rich mo.
“ <i>albidus</i> - - -	White do. - -	”
<i>Agrostemma coronaria</i> - - -	Rose Campion - -	com.
“ <i>Flos Jovis</i> - - -	Jove's do. - -	”
<i>Althea Chinensis</i> - - -	Chinese Hollyhock - -	p. lo. a.
“ <i>rosea</i> - - -	Common do. - -	com. ma.
<i>Alyssum saxatile</i> - - -	Rock Alyssum - -	com.
“ <i>maritimum</i> - - -	Sweet do. - -	”
“ <i>Wiersbeckii</i> - - -	Wiersbeck's new do. - -	”
<i>Ammobium alatum</i> - - -	Winged Ammobium - -	”
“ <i>album</i> - - -	White do. - -	”
<i>Aquilegia canadensis</i> - - -	Canadian Columbine - -	”
“ <i>formosa</i> - - -	Beautiful do. - -	”
“ <i>Siberica plena</i> - - -	Double Liberian do. - -	”
“ <i>Harrisonii</i> - - -	Harrison's do. - -	”
“ <i>punctata</i> - - -	Spotted do. - -	”

AND PERENNIAL PLANTS;

to May, or from August to October, and which bear the
our climate.

Colour.	Time of Flowering.	Height.	Remarks.
pale yel.	June	ft. in.	
bl.	"	7 0	
bl. & wh.	"	3 0	
bl.	"	4 0	
wh.	"	1 6	
rose	"	1 6	
sc.	"	2 0	
var.	July	1 6	
"	"	4 0	
yel.	April	5 to 8	
wh.	"		
yel.	"		
wh. & yel.	June	1 0	
wh.	"	1 0	
r. & o.	May	1 0	
"	"	2 0	
bl.	"	2 0	
var.	June	2 0	
"	"	2 0	

Botanical Name.	English Name.	Soil.
<i>Anagallis Brewerii</i> - - -	Brewer's Pimpernel -	lo. & lmd.
„ <i>azurea grandiflora</i> - -	Large-flowered do. -	„
„ <i>cærulea grandiflora</i> - -	Do. do. do. -	„
„ <i>Monelli</i> - - -	Italian do. - -	„
„ <i>Phillipii</i> - - -	Phillips's do. -	„
„ <i>Pierpii</i> - - -	Pierce's (fringed) do. -	„
<i>Antirrhinum majus</i> - - -	Great Snapdragon -	com.
„ <i>pictum</i> - - -	Painted do. -	„
„ <i>caryophylloides</i> - -	Carnation do. -	„
<i>Argemone grandiflora</i> - - -	Prickly Poppy -	„
<i>Azalea Americana</i> - - -	American Azalia -	p.m.a. & sa.
„ <i>Indica</i> - - -	Indian do. -	„
<i>Campanula medium</i> - - -	Canterbury Bell -	com.
„ <i>alba</i> - - -	White do. - -	„
„ <i>flore pleno</i> - -	Double do. - -	„
„ <i>persicifolia</i> - -	Peach-leaved do. -	„
„ <i>trachelioides</i> - -	Trachelium-like do. -	„
„ <i>pyramidalis</i> - -	Chimney do. -	„
<i>Catananche bicolor</i> - - -	Two-colored Catananche -	„
„ <i>cærulea</i> - - -	Sky blue do. -	„
<i>Centaurea splendens</i> - - -	Splendid Centaury -	„
<i>Centranthus augustifolius</i> - -	Large-leaved Valerian -	„
„ <i>rubra</i> - - -	Red do. - -	„
<i>Chelone barbata</i> - - -	Bearded Chelone -	com.
„ <i>elegans rosea</i> - -	Elegant rosy do. -	„

Colour.	Time of Flowering.	Height.	Remarks.
		ft. in.	
pur.	June	1 0	The perennial Pimpernels are exquisitely delicate, though they bear town air amazingly well. They perish in damp, and require abundance of light. The roots should be covered with litter before frost sets in.
bl.	„	1 0	
flesh	„	1 0	
bl.	„	1 0	
sc. & bl.	„	1 0	
b. & w.	„	1 0	
wh.	„	2 0	Very hardy, showy, and easy of management.
r. & w.	„	2 0	
u. & wh.	„	2 0	
wh.	„	2 0	Useful in the borders.
var.	„	1 to 4ft.	
„	May	1 to 6	There are several varieties of American Azalea, all of which are hardy, but require careful culture. They appear to bear smoke with great patience, if grown in a peaty soil. The American is most hardy.
bl.	June	3 0	These elegant plants are capable of a variety of uses, for adorning windows, balconies, and trellises. They are worth more attention than they usually obtain in London, where this plant has almost lost its character through neglect and illtreatment.
wh.	„	3 0	
bl. & w.	„	3 0	
„	„	2 0	
bl.	„	1 6	
light bl.	„	4 0	
wh. & p.	„	2 0	The corydalis Catananche is the most delicate, and hence the most doubtful in town. The two-coloured has often been grown with success.
bl.	„	2 0	
red	July	2 0	
cr.	June	1 0	
red	„	1 0	The Valerian is a gay and hardy perennial, and flourishes as well in town as in its native woods.
so.	May	2 0	
rose	„	2 0	

Botanical Name.	English Name.	Soil.
<i>Cheiranthus cheiri</i> - - -	Common Wallflower -	com.
" <i>atrosanguinem</i> - -	Blood-coloured do. -	"
" <i>violacea</i> - -	Violet-coloured do. -	"
" <i>lutea</i> - -	Double yellow do. -	"
" <i>fl. pl. cæruleus</i> - -	Do. blue do. -	com. ma.
" <i>fl. pl. atro-fuscus</i> - -	Do. dark brown do. -	"
" <i>Germanica</i> - -	German do. -	"
<i>Chrysanthemum perennis variabilis</i>	Perennial Chrysanthemum	"
<i>Cineraria argentea</i> - - -	Silvery Cineraria -	lo. & lmd.
<i>Cistus guttatus</i> - - -	Rock Rose -	com.
" <i>variabilis</i> - -	Mixed (for rock-work) -	"
<i>Delphinium Barlowii</i> - - -	Barlow's Delphinium -	com.
" <i>elatum</i> - -	Tall do. - -	"
" <i>grandiflorum</i> - -	Large-flowered do. -	"
" <i>ochroleucum</i> - -	Straw-coloured do. -	"
" <i>elegans</i> - -	Elegant do. - -	"

Colour.	Time of Flowering.	Height.	Remarks.
		ft. in.	
yel.	March	2 0	
dk. yel.	to Aug.	2 0	
vio.	"	2 0	
yel.	"	2 0	
bl.	"	1 0	
dk. br.	"	1 6	
var.	"	2 0	
var.	"	4 0	The Chrysanthemum is a glorious ornament to the town garden, and needs but little attention. To propagate it, it is only necessary to make a number of cuttings from the bottoms of the plants in June, and stick them in the ground anywhere. They will not even want shading, and will root at once, and may be planted out for blooming in September. Old roots should be separated in March, and planted <i>deeply</i> in light soil with old manure, either against a wall or trellis. Standards require the support of oak sticks. Manure-water strengthens them in blowing. Their chief enemy is wind. The white sorts suffer in town during heavy rains, which discolour them.
wh.	July	3 0	The only hardy kind.
y. & r.	June	1 0	
var.	"	1 0	
bright bl.	June	4 0	
dk.	"	4 0	
"	"	2 6	The Delphinium does not prosper in the closer parts of town. It loses colour unless grown in a comparatively pure air.
straw	"	3 0	
pi.	"	1 0	

Botanical Name.	English Name.	Soil.
<i>Dahlia variabilis</i> - - -	Dahlia (various sorts) -	rich mc
<i>Dianthus Chinensis</i> - - -	Chinese Pink -	"
,, <i>Hispanicus</i> - - -	Spanish do. -	"
,, <i>superbus</i> - - -	Splendid do. -	"
,, <i>barbatus</i> - - -	Sweet William do. -	"
,, <i>carophyllus</i> - - -	Carnation -	lo. & lme
<i>Digitalis guttatum</i> - - -	Spotted Foxglove -	com.
,, <i>aurea</i> - - -	Golden do. -	"
,, <i>purpurea</i> - - -	Purple do. -	"
,, <i>alba</i> - - -	White do. -	"
,, <i>rosea</i> - - -	Rosy do. -	"
<i>Echium violaceum</i> - - -	Violet Bugloss -	"
<i>Erysimum variegata</i> - - -	Hedge Mustard -	"
<i>Eschscholtzia Californica</i> - - -	Eschscholtzia -	"
,, <i>compacta</i> - - -	Neat do. -	"
,, <i>crocea</i> - - -	Orange do. -	"
,, <i>alba novo</i> - - -	New White -	"
<i>Fuschia conica</i> .. - -	Common Fuschia -	lme. sa. & ma.
,, <i>globosa</i> - - -	Globe do. -	"
,, <i>gracilis</i> - - -	Drooping do. -	"
,, <i>recurvata</i> - - -	Recurved do. -	"
<i>Gentiana acaulis</i> - - -	Dwarf Gentian -	lo.
,, <i>alba</i> - - -	White do. -	"
,, <i>Amarella</i> - - -	Blue do. -	"
,, <i>cruiciata</i> - - -	Cropwort -	"
,, <i>hybrida</i> - - -	Hybrid (new) -	"

Colour.	Time of Flowering.	Height.	Remarks.
var.	Aug.	ft. in. 4 to 7 ft.	
var.	June	1 0	None of the Pink or Carnation families
red	"	1 0	do well in town ; in the suburbs they may
lilac	"	1 6	be grown. Those who cannot spare the
var.	"	1 6	necessary leisure should obtain a supply of
"	"	2 0	plants every year rather than lose these
w. & b.	"	3 0	elegant favourites.
yel.	"	3 0	
pur.	"	3 0	
wh.	"	3 0	
rose	"	3 0	
vio.	July	2 6	
var.	May	1 0	
yel.	June	1 0	The Eschscholtzia thrives amazingly
"	"	1 0	in confinement ; and may be treated either
or.	"	1 0	as an annual or perennial. The roots need
wh.	"	1 0	a slight covering in winter.
cr.	"	3 0	
"	"	3 0	The Fuschias here named suit best for the
red	"	3 0	town garden, and stand the winter in the
coral	"	3 0	open ground. It is best to cut them down
			close in autumn, as they bloom freely on
			the young-wood the following year. Other
			kinds require to be potted and sheltered
			during winter. Fuschias like a liberal
			supply of water.
bl.	April	0 6	
wh.	"	0 6	None of the Gentian tribe succeed in
light bl.	"	0 6	very close districts ; dust and smoke annoy
dark bl.	"	1 0	them, and only in good suburban districts
pu. & y.	"	2 0	will they succeed so as to be remunerative.

Botanical Name.	English Name.	Soil.
<i>Geum coccineum</i> - - -	Scarlet Avens - - -	com.
" <i>splendens</i> - - -	Splendid do. - - -	"
" <i>atrosanguineum</i> - - -	Dark do. - - -	"
" <i>superbum</i> - - -	Superb do. - - -	"
<i>Hesperus matronalis</i> - - -	Sweet Rocket - - -	rich m.
" <i>tristio</i> - - -	White do. - - -	"
" <i>fragrans pleno</i> - - -	Double-fragrant - - -	"
(Several other sorts.)		
<i>Hibiscus moschatus</i> - - -	Perennial Hibiscus - -	com.
<i>Hieracium grandiflora</i> - - -	Large-flowering Hawk-weed	com. ma
<i>Ipomopsis surantiaca</i> - - -	Orange-coloured Ipomopsis	p. lo.
" <i>elegans</i> - - -	Elegant do. - - -	"
" <i>picta</i> - - -	Painted do. - - -	"
" <i>superba</i> - - -	Superb do. - - -	"
" <i>lutea</i> - - -	Yellow do. - - -	"
<i>Lathyrus latifolius</i> - - -	Everlasting Pea - - -	com.
" <i>albus</i> - - -	White do. - - -	"
<i>Lobelia Cardinalis</i> - - -	Cardinal Lobelia - -	rich mo.
" <i>compacta</i> - - -	Dwarf do. - - -	"
" " <i>alba</i> - - -	" white do. - - -	"
" <i>erinoides</i> - - -	Erinus-like do. - - -	"
" <i>grandis</i> - - -	Grand do. - - -	"
" <i>ignea</i> - - -	Tall do. - - -	"
" <i>fulgens</i> - - -	Vivid do. - - -	"

Colour.	Time of Flowering.	Height.	Remarks.
sc.	July	ft. in.	All the Geum tribe succeed in town, but they require an occasional drenching with soft water, to remove dust from the foliage.
k. red	"	1 0	
sc.	"	1 0	
pur.	June	2 0	A valuable stock plant; it is very cheerful when in bloom, and only demands a little old manure. New plants should be raised every year in the same way as directed for Wallflowers, page 62.
wh.	"	2 0	
h. & pi.	"	2 0	
"	Aug.	3 0	This is the only hardy Hibiscus. It is fond of moisture.
yel.	July	2 0	Beautiful and easy of culture.
or.	"	3 0	The Ipomopsis is a tender biennial, and needs shelter in winter. It is too beautiful to be excluded from the list of town plants, though it does not adapt itself without some care. Grow in a compost, of loam one part and peat two parts. Sow in pans indoors in July.
sc.	"	3 0	
h. & w.	"	3 0	
sc.	"	3 0	
yel.	"	3 0	
cr.	June	8 0	A gay and useful climber, will grow in any soil or situation.
wh.	"	8 0	
sc.	"	3 0	There are no flowering plants better adapted for town than the perennial Lobeliae. They are handsome, hardy, love shade, and will even bear damp. They may be increased by offsets from the roots.
bl.	"	0 3	
wh.	"	0 3	
bl.	"	0 6	
pur.	"	1 6	These may be divided in spring. Whether
sc.	Sep.	3 0	grown in beds by themselves, or scattered
"	June	2 0	about, they have a very fine effect. Give rich soil and plenty of moisture. <i>L. fulgens</i> is strongly recommended.

Botanical Name.	English Name.	Soil.
<i>Lupinus arboreus</i> - - -	Tree Lupin - -	com.
„ <i>lepidus</i> - - -	Columbian do. - -	„
„ <i>Mexicanus</i> - - -	Mexican do. - -	„
„ <i>albus</i> - - -	White do. - -	„
<i>Lychnis fulgens</i> - - -	Bright Lychnis - -	„
„ <i>nana</i> - - -	Dwarf do. - -	„
„ <i>rosea</i> - - -	Rosy do. - -	„
<i>Oenothera Drummondii</i> - -	Drummond's Evening Primrose	„
„ <i>taraxacifolia</i> - -	Dandelion-leaved do. -	„
„ <i>tetraptera</i> - -	Winged do. - -	„
„ <i>odorata</i> - -	Sweet-scented do. -	„
„ <i>macrocarpa</i> - -	Large-fruited do. -	„
<i>Oxalis rosea</i> - - -	Rosy Oxalis - -	„
<i>Papaver pulcherimum</i> - -	Beautiful perennial Poppy	„
„ <i>orientalis</i> - -	Oriental do. - -	„
<i>Phlox perennis</i> - - -	Perennial Phlox - -	rich me.
<i>Potentilla formosa</i> - - -	Beautiful Cinquefoil - -	„
„ <i>atrosanguineum</i> - -	Dark crimson do. - -	„
„ <i>Garneriana</i> - -	Garner's do. - -	„
„ <i>grandiflora</i> - -	Large-flowered do. -	„
„ <i>Mackayana</i> - -	Mackay's do. - -	„
„ <i>splendens</i> - -	Splendid do. - -	„

Colour.	Time of Flower-ing.	Height.	Remarks.
yel.	July	4 0	The perennial Lupins do well in a smoky
l. & pu.	Aug.	2 0	climate, but are scarcely worth much room,
bl.	"	2 0	seeing the many plants of superior beauty
wh.	June	3 0	that are now within reach at little expense.
sc.	"	1 6	The Lychnis has been so eclipsed by
pink	May	0 6	the Lobelias, Verbenas, and other glitter-
rose	June	1 0	ing plants, that it is now but little wanted.
yel.	"	0 6	All the <i>Œnotheras</i> succeed in town,
wh.	"	1 0	<i>CE. taraxacifolia</i> especially. This is a
"	"	1 0	beautiful flower; it grows low and spread-
yel.	"	2 0	ing, and should have plenty of room. It
"	"	2 0	requires a little shelter in winter.
rose	"	0 6	The rosy Oxalis is a fairy-like little
			gem, not sufficiently showy to add much
			to the general aspect of a garden, but very
			choice, easily raised, and quite hardy. A
			cluster should be sown in the border, close
			to the path.
cr.	"	1 6	The townsman should be liberal in the
sc.	"	3 0	adoption of the Poppy; it is one of his
best floral friends.			
var.	July	1 0	There are several varieties of hardy
			Phlox which are very elegant, and suited
			for town growing.
pur.	June	1 6	The Cinquefoils and the wild Tormentil
cr.	"	1 6	do well in town, and are very choice in
pur.	"	1 6	character. I have always had some patches
yel.	"	1 6	of Tormentil from the country meadows
· & pur.	"	1 6	planted in my town garden, where they
yel.	"	1 6	have flourished most cheerfully.

Botanical Name.	English Name.	Soil.
<i>Salvia coccinea</i> - - - -	Scarlet flowering Sage -	com. & t.
„ <i>patens</i> - - - -	Spreading do. -	"
„ <i>alba</i> - - - -	White do. -	"
„ <i>Mexicana</i> - - - -	Mexican do. -	"
„ <i>dulcis</i> - - - -	Sweet do. -	"
<i>Schizanthus Grahamii</i> - -	Graham's Schizanthus -	lo. lim.
„ <i>Hookerii</i> - -	Hooker's do. -	"
„ <i>retusus</i> - -	Notched do. -	"
„ <i>albus</i> - -	Splendid white do. -	"
<i>Sedum acre</i> - - - -	Common Stonecrop -	com.
„ <i>azureum</i> - - - -	Azure do. -	"
<i>Silene Schafta</i> - - - -	New Catchfly -	rich m.
<i>Stipa pennata</i> - - - -	Feather Grass -	com.
<i>Verbascum biennis</i> - - -	Biennial Mullein -	"
„ <i>speciosum</i> - - -	Showy do. -	"
„ <i>venustum</i> - - -	Beautiful do. -	"

Many established favourites, such as Primulas, Violets, excluded from these lists, as bei-

Colour.	Time of Flowering.	Height.	Remarks.
sc.	June	2 6	Salvia Coccinea and S. Mexicana are the only sorts that need shelter in winter; the other sorts may be mulched with litter or leaves in autumn, and require no further attention.
bl.	July	2 6	
wh.	"	2 6	
sc.	"	2 6	
pur.	"	5 0	
rose & y.	"	2 0	These are biennials.
rose	"	2 0	
pi. & y.	"	2 0	
th. & y.	"	2 0	
yel.	June	0 3	The common Stonecrop does anywhere, and suits well for rock-work. The azure kind is very difficult to raise, but bears smoke well.
bl.	"	0 3	
cr.	May	0 9	
gr.	July	1 0	Very ornamental, and suitable for rock-work.
yel.	Aug.	2 0	All the Mulleins are susceptible of smoke, and soot is apt to adhere to their downy leaves; otherwise they are easy of culture.
"	"	3 0	
"	"	3 0	

owslips, Peonies, Saxifrages, Daisies, Brooms, &c., are utterly unsuitable for town gardens.

IV.—SELEC

For Greenhouse or Window Culture, many of which may page 59 will suit most of these, though the soil usual sown at any season, but Spring is usually the best.

Botanical Name.	English Name.	Soil.
<i>Acacia armata</i> - - -	Prickly acacia - -	p. lo.
„ <i>dealbata</i> - - -	Whitened do. - -	„
„ <i>Farnesiana</i> - - -	Farnesian do. - -	„
„ <i>leucocephala</i> - - -	White-headed do. - -	„
<i>Achimenes alba</i> - - -	White Achimenes - -	lmd. s.
„ <i>grandiflora</i> - - -	Large-flowered do. - -	„
„ <i>patens</i> - - -	Wide-flowered do. - -	„
„ <i>rosea</i> - - -	Rose-coloured do. - -	„
<i>Alonsoa elegans</i> - - -	Elegant Alonsoa - -	„
„ <i>grandiflora</i> - - -	Large-flowered do. - -	„
<i>Anomatheca cruenta</i> - - -	Blood-red Anomatheca	„
<i>Asclepius curassavica</i> - - -	Swallow Wort - -	p. lo.
„ <i>ornata</i> - - -	Ornamented do. - -	„
„ <i>tuberosa</i> - - -	Tuberous-rooted do. - -	„
<i>Auricula variabilis</i> - - -	Auricula, common and Alpine varieties	sa. m.
<i>Azalea indica</i> - - -	Indian Azalea - -	p. u.

PERENNIALS

dded out during the Summer months. The soil directed at ed is specified as in the former lists. They may all be

Colour.	Time of Flowering.	Height.	Remarks.
yel.	April	ft. in. 6 0	One or two Acacias may be grown in every greenhouse with very little trouble, or on the sill of a staircase window. Any light, rich soil will suit. They should not be planted out in London.
"	"	6 0	
"	"	6 0	
wh.	"	6 0	
"	"	2 0	These are high-class plants, and no collection, however small, can be complete without them.
pur.	"	1 6	
dk. bl.	"	1 6	
rose	"	1 6	
sc.	June	2 0	Very ornamental and suitable for bedding.
"	"	2 0	
red	"	1 0	
c. & y.	"	3 0	Elegant and curious, but unsuitable for bedding.
pur.	July	3 0	
or.	"	2 0	
var.	"	0 6	Avoid exciting composts; the best is formed of half old cow dung, and half sandy soil from a meadow. Always raise from seed. Never put them out at all, for dust and smoke destroy them.
"	May	1 to 6 ft.	

Botanical Name.	English Name.	Soil.
<i>Bignonia variabilis</i> - - -	Trumpet-flower of numerous varieties	p. lo.
<i>Brugmansia suaveolens</i> - - -	Sweet Brugmansia	lo. sa. m.
" <i>lutea</i> - - -	Yellow do.	"
" <i>bicolor</i> - - -	Two-coloured do.	"
<i>Campanula stricta</i> - - -	Upright Canterbury-bell	com.
<i>Calceolaria pinnata</i> - - -	Winged Lady's-slipper	lmd.
" <i>variabilis</i> - - -	Various hybrid varieties	"
 <i>Canna indica</i> - - -	Indian Shot	p. lo.
" (many other kinds) - - -		
<i>Celosia coccinea</i> - - -	Scarlet Celosia	com.
" <i>cretica</i> - - -	Cretan	"
<i>Chorispora gracilis</i> - - -	Slender Chorisema	p. lo.
<i>Cineraria cruenta</i> - - -	Cineraria of numerous varieties	lo. lmd.
 <i>Cobaea scandens</i> - - -	Climbing Cobaea	"
<i>Commelinia alba</i> - - -	White Commelinia	"
" <i>caelestis</i> - - -	Blue do.	"
 <i>Crotalaria elegans</i> - - -	Elegant Crotalaria	"
" <i>purpurea</i> - - -	Purple do.	"
" <i>turgida</i> - - -	Yellow do.	"
<i>Cuphea platycentra</i> - - -	Beautiful Cuphea	"
" <i>sileneoides</i> - - -	Silene-like do.	"
<i>Cyclamen Persicum</i> - - -	Persian Cyclamen	"

Colour.	Time of Flowering.	Height.	Remarks.
var.	June	ft. in. 10 to 30 ft.	Fine climbers; succeed best in heat, but may be raised without it by sowing in June.
wh.	July	4 0	These are gorgeous and wonderful flowers. They have a fine effect out of doors in summer.
buff	"	4 0	
or. & y.	"	4 0	
bl.	June	1 6	An excellent window plant.
yel.	May	1 6	
var.	"	1 6	The bright yellow Calceolaria has a very gay effect if planted out in groups with masses of Verbena, Cuphea, Gerania, and Heliotropum.
sc.	"	2 0	These may be raised out of doors if sown late.
"	June	2 0	
yel.	"	1 0	
y. & red	May	3 0	A pretty indoor climber.
var.	April	2 0	These glittering favourites require little more than careful watering, and plenty of light.
pur.	June	20 0	A charming climber.
wh.	always	2 0	
bl.	May	3 0	C. Cælestis is one of the finest tenants of the greenhouse. It does not need a rich but a light turf soil.
pur.	July	3 0	In a small collection not at all necessary.
"	"	3 0	
yel.	"	3 0	
c. w. & bk.	always	2 0	Very beautiful, and always in flower.
red	May	1 6	It is a fine plant for bedding.
w. & p.	March	0 6	For windows only.

Botanical Name.		English Name.		Soil.
Erica of numerous kinds	-	Heath	- - -	p. s.
Elchrysum sesamoïdes	-	Superb Elichrysum	-	lo. lmd.
" variegatum	-	Variegated do.	- -	"
Eupatorium dalea	-	Shrubby Eupatorium	-	"
Fuschia of many sorts	-	Fuschia	- - -	lmd. sa. ma.
Genista canariensis	-	Canary Genista	- -	lo. p.
" fragrans	-	Sweet-scented do.	-	"
" rodophena	-	Compact do.	- -	"
Geranium coccinea	-	Scarlet Geranium	-	lo. lmd.
" globosa	-	Globe do.	- -	"
Gloxinias of many kinds	-	Gloxinia	- - -	p. lmd.
Heliotropum Peruvianum	et	Heliotropes of many		lo. lmd.
variabilis		sorts	- - -	
Hibiscus Cameronii	-	Cameron's Hibiscus	-	"
Ipomea-rubro-cærulea	-	Mexican Ipomæa		p. lo.
Kennedia coccinea	-	Scarlet Kennedia	-	"
" prostrata	-	One-flowered do.	-	"
" rubicunda	-	Dingy-flowered do.	-	"
Lotus Jacobæus	-	Bird's Tressel	-	p. lo.
" luteus	-	Yellow do.	- -	"

Colour.	Time of Flowering.	Height.	Remarks.
var.	always	ft. in. var.	Heaths do not succeed except in a compost of peat and sand. They should never be bedded out, but bloomed in windows.
p. & y. br.	April	2 0	Great favourites and comparatively hardy.
	"	1 0	
pi.	July	1 0	
var.	May	1 to 10 ft.	Fuschias indoors need abundance of moisture. Seedlings frequently sport into new varieties.
yel.	April	3 0	Genistas do not keep in bloom long enough for bedding, though for a month or so they are very pretty.
"	"	3 0	
"	"	3 0	
sc.	May	2 to 4 ft.	The poorest soil is best for Geraniums. They may be increased indefinitely by cuttings during the summer. Tom Thumb is the best sort for bedding, it is very dwarf and shrubby. Geraniums should never be removed from pots.
"	"	"	
var.	June	1 0	
bl. & w.	"	1 6	When bedded should be pegged down and closely crowded together.
buff	July	2 0	
bl. & r.	June	8 0	An elegant bell-flowered climber, easily reared.
sc.	"	5 0	Elegant indoor climbers.
"	"	5 0	
red.	"	5 0	
dk. br.	"	2 0	Comparatively hardy, but impatient of smoke.
yel.	"	2 0	

Botanical Name.	English Name.	Soil.
<i>Lophospermum Hendersonii</i> -	Henderson's Lophospermum	rich mo.
" <i>Rodochiton</i> -	Dark do. - - -	"
" <i>scandens</i> -	Climbing do. - - -	"
<i>Maurandya Barclayana</i> -	Barclay's Maurandya	lo. lmd.
" <i>coccinea</i> -	Scarlet do. - - -	"
" <i>albiflora</i> -	White do. - - -	"
" <i>semperflorens</i> -	Ever-blooming do. - - -	"
" <i>pulchella</i> -	Beautiful do. - - -	"
<i>Mimulus Cardinalis et variabilis</i>	Cardinal and other kinds of Monkey-flower	rich mo.
" <i>moschatus</i> - -	Musk-plant - - -	"
<i>Pelargonium</i> of various kinds -	Geranium - - -	lo. lmd.
<i>Penstemon gentianoides</i> -	Gentian-like Penstemon	rich mo.
" <i>coccinea</i> -	Scarlet do. - - -	"
" <i>speciosus</i> -	Showy do. - - -	"
<i>Petunia phoenicia</i> -	Purple Petunia - - -	"
" <i>nyctaginiflora</i> -	Handsome do. - - -	"
<i>Sollya heterophylla</i> -	Various-leaved Sollya -	p. lo.
<i>Thunbergia alata</i> -	Winged-stalked Thunbergia	"
" <i>alba</i> -	White do. - - -	"
" <i>aurantiaca</i> -	Orange do. - - -	"
<i>Tweedia caerulea</i> -	Sky-blue Tweedia -	"
" <i>rosea</i> -	Rose-coloured do. -	"
Verbenas of many sorts -	Vervain - - -	p. lo. & lmd.
<i>Zauschneria Californica</i> -	Californian Zauschneria	"

Colour.	Time of Flowering.	Height.	Remarks.
		ft. in.	
dk. pu.	May	10 0	Strong climbers.
,,	,,	10 0	
rose	,,	10 0	
bl.	,,	10 0	
sc.	,,	10 0	
wh.	,,	10 0	
rose	always	10 0	
pur.	May	10 0	
var.	June	2 0	All the kinds of Mimulus are easily grown. The musk plant is an old and valued favourite. It may be grown in any kitchen where there is sufficient light.
yel.	,,	0 6	
var.	May	3 0	Admirable for bedding.
pur.	June	3 0	Showy favourites, requiring but little care. There are six or eight fine sorts besides those enumerated here.
sc.	,,	3 0	
bl.	,,	3 0	
pur.	,,	3 0	Very useful for bedding, or for the outside of a rustic basket. There are numerous varieties.
wh.	,,	3 0	
bl.	April	4 0	
yel.	June	8 0	Somewhat difficult of management and best raised in heat. There are numerous varieties, all handsome.
w. & pu.	,,	8 0	
or. & pu.	,,	8 0	
bl.	,,	8 0	
rose	,,	2 0	
var.	,,	1 6	Attractive and manageable.
or. & sc.	July	1 0	Should be pegged down when bedded, the rooted shoots removed and potted in August to form new plants for the next season.

CHAPTER XI.

CALENDAR OF OPERATIONS.

JANUARY.—If frost sets in protect fuschias, roses, and other shrubs with dead leaves or old litter. In open weather perform any work which was neglected in November. Check the growth of out-door plants as much as possible, and cover with leaf mould or old dung the tops of any bulbous plants which show themselves above ground. Creepers may be trained, and any bulbs that remain out of ground planted. The roots of thrift may be divided for new edgings.

IN-DOORS—give water sparingly, and only on fine mornings. Do not suffer the temperature of the house to fall below 36°. Sow in heat any half-hardy annuals that you desire to have early in flower. Watch the new shoots of herbaceous plants, and pinch off any that are likely to interfere with the general shape of the plants. Fuschias that were cut down in autumn are by this time full of green sprouts; as these extend round the stem, bring them up to a stick in the centre with strips of bass, so as to form compact and well-shaped trees.

FEBRUARY.—In dry weather dig unoccupied ground, and fork over beds containing established bulbs. Protect half-hardy plants with litter in case of frost. In mild weather edgings may be planted. Pruning and transplanting may now be performed. Creepers that require training may now be attended to, and those that bear drooping flowers should be trained horizontally. *Ranunculus* and *gladiolus* bulbs may be planted, as may the roots of any hardy perennials. In transplanting, take advantage of off-sets and divisions of roots, as strong young plants may be obtained in this way.

IN-DOORS—Place roots of dahlias and *marvel of Peru* in gentle heat; sow annuals in heat. Seedling *auriculas*, *geraniums*, *campanulas*, *calceolarias*, &c., may be obtained for potting off in the summer, if the seeds are sown now in pans or boxes, and placed near a stove, or in the window of a warm room. Give plenty of light to plants that are making young wood.

MARCH.—In this month a general clearance should be made of all rubbish and litter that may have accumulated during winter. Towards the end of the month sow annual flower-seeds in the borders, marking each sort with a tally. Autumn-sown annuals may now be transplanted, and protected till fresh rooted. Last year's layers of carnations should be planted out towards the end of the month. The soil should be rich, with plenty of sand.

IN-DOORS—Sow balsam seed, and all kinds of half-hardy annuals, either in heat or in pots in a

warm room. Attend to auriculas in pots; and if they begin to throw up trusses of bloom, pinch off all but the strongest one, and thin out the centre pips of that to afford room for the others to expand. Auricula seed may be sown this month, and kept barely moist till the plants appear, and then watered more freely.

APRIL.—Vegetation is very vigilant this month, and the gardener must keep pace with it. Complete hastily any work which has been neglected from last month, especially if it interferes in any way with the general tidiness of the ground. Sow any patches of unoccupied ground with such seeds as you wish to raise, especially annuals, for filling up vacancies as they occur in the borders. Look sharp after weeds, and on no account suffer them to blossom, or your ground will soon be full of them. But weeds are not to be ruthlessly destroyed, for oftentimes a fine thistle or patch of pimpernel appears in a spot just suited to it, and then it deserves encouragement. Slugs and snails make great havoc this month, and should be vigorously hunted. Wallflowers, Brompton stocks, hollyhocks, campanulas, sweet-williams, and other biennials, may now be transplanted to the spots they are to adorn, and fresh seeds sown to procure new plants. Sow mignonette where it is to remain, as it does not very well bear transplanting. Other annuals may be sown to maintain a succession. Plant out dahlia roots where they are to bloom. Cuttings of fuschias, heliotropes, salvias, verbenas, petunias,

and other herbaceous plants may be struck at the latter end of the month, if planted in pots half filled with soil and plunged up to the rim, in a warm situation, and each pot covered with a piece of flat window-glass. If the weather is cold, the pots may be placed in a window. Water the advancing buds of roses; and, if the leaves appear curled, search for a grub which is sure to be concealed there. If tulips are frozen in the morning, water them with cold water. Clip edgings, turn and repair gravel walks, and make up the beds smooth and neat.

IN-DOORS—Propagate any plants that will bear cutting, and give auriculas plenty of water and sun. Re-pot plants that have stood the winter in windows, giving geraniums the poorest soil.

MAY.—Seedlings and cuttings which have been housed may be placed in the open air. Water with caution for fear of frost. Never water plants without wetting them thoroughly, a mere damping of the top mould is always an injury. Sow annuals for succession. Cuttings of roses may now be made, and planted two joints in a shady situation. Herbaceous perennials, of all kinds, may now be propagated by cutting. Thin out annuals in the borders by drawing up the weakest plants, which, if planted out in vacant spots, will make strong plants for late blooming. Nip off superabundant shoots of asters and luxurious herbaceous plants. Tie any young flower stems that are likely hereafter to need support. Cut down flower-stems of

any plants which have flowered and are becoming shabby. Dahlias which have been struck in-doors may now be planted out.

IN-DOORS—Give plenty of air and water, as the plants are now growing vigorously. Seeds that require heat at other times may be sown now in pans or boxes, and will soon come up if placed in windows where the sun shines daily for some hours. All flowering plants should be kept in a neat condition, and flower-stems removed the moment the blossoms get dingy. At the end of the month, plant out half-hardy plants for summer blooming in beds and borders.

JUNE.—Propagating cuttings as in last month, placing them in shady borders, or keeping off the sun by means of tiles stood upright. Pipe pinks and carnations in sandy earth. Young geraniums and fuchsias, intended for the windows in autumn, should now be planted out, or first potted and plunged to the rims in the earth. It is not too late to sow Virginia stock, Venus' looking-glass, Clarkia, and collinsia for autumn blooming. They will require plenty of water. Take up bulbs of hyacinths and tulips as the foliage withers, and dry carefully before storing away. In storing remove the earth, but not the outer skin from the bulbs. Look out for green fly, and destroy as directed in Chapter IX. Water plentifully morning and evening.

IN-DOORS—Remove greenhouse plants to a north aspect, and stand the pots on a deep stratum of coal ashes.

JULY.—Roses may be budded on wild stocks: azaleas, calceolarias, pelargoniums, fuschias, myrtles, and other shrubs may be propagated, the earlier in the month the better. Sow mignonette for in-door winter blooming. Quick-growing annuals may be sown in moist places for blooming in September. Thin out annuals in showery weather. Continue to take up bulbs as their foliage decays, and supply their places with any good plants you have at hand. If the bulbs have been in beds by themselves their room may be used for mixed showy annuals, asters well broken in colours, or, better than all, masses of geraniums, calceolarias, and verbenas. Thin out superfluous branches on dahlias, salvias, and hydrangeas. Cut down pelargoniums that have done blooming, and put in the best cuttings for striking. Nail up the straggling shoots of creepers, and clip box edgings if they require it.

IN-DOORS—Look after green fly, and fumigate if necessary. Give plenty of air and water. Nip off the flower-buds of any plants that you require for late autumn blooming.

AUGUST.—The fading of the borders may be arrested by removing decayed flowers of such as throw up fresh heads. Plant out seedling annuals to keep up the gaiety of the scene. Pot late annuals for window blooming. Take cuttings of pelargoniums that are out of flower; also of calceolarias, antirrhinums, caryophylloides, penstemons, &c., none of which require heat to strike them. Continue to take up bulbs as they decay at top.

Water chrysanthemums freely with liquid manure, and pot the smaller kinds intended for in-door blooming. Examine dahlias, and loosen the early ties if they pinch at all; and destroy caterpillars and earwigs, both of which infest dahlias very much. If the pelargoniums that were out of doors after flowering begin to sprout vigorously, re-pot them in the smallest pots possible, shaking the earth well off the roots, and putting them again in very poor, sandy soil. Brompton stocks should now be planted where they are to flower. Gather seeds that are ripe, and root out annuals as they lose their beauty.

IN-DOORS.—There is little to do beside sowing seeds of any tender plants for flowering next season, and keeping a good look-out for vermin. Re-pot auriculas, removing the suckers and pinch off the black ends of old roots.

SEPTEMBER.—Plant crocus and other bulbs. Transplant hardy perennials, and propagate by cuttings petunias, heliotropes, salvias, geraniums, &c., which require only a light soil and a few hand-glasses. If the chimney campanulas be out of flower, take up the roots, break them in pieces, half fill a pot with loam, and lay in the broken roots, and then cover up with loam, and put them away in any corner out of reach of winter frost. Raise all greenhouse plants that were bedded out, and re-pot them in suitable soil, using pots as small as the size of the plants will allow. Cut back to low buds, and of the best cuttings make new plants by

setting them round the sides of pots half filled with poor sandy earth. Cuttings always root faster if placed near the sides of the pots. Sow hardy annuals in the open ground to stand the winter; tie and trim chrysanthemums and dahlias; trim and plant edgings. Prepare without delay hyacinth and tulip beds.

IN-DOORS.—Sow auricula seed in pans and boxes; also Clarkia, Collinsia, and other choice annuals to be preserved in pots all winter. Provide winter quarters for all plants just re-potted, and be careful not to force them into hasty growth by excess of light or moisture. Diminish the watering of all plants, and begin to dry up cactuses, which require no water during the winter months.

OCTOBER.—Plant bulbs of hyacinth, tulip, narcissus, jonquil, and daffodil, and anemone, and shrubs of every description. Take up any greenhouse plants that remain out, and re-pot as directed last month. The Persian cyclamen must be taken up and potted in loam, sand, and leaf-mould. Spread out chrysanthemums on walls and trellises, and give them plenty of water if the weather be dry. Hardy perennials may now be divided for increase; and plant and repair edgings of all kinds.

IN-DOORS.—Gradually inure plants to winter treatment by the free admission of air and abatement of water. Prepare for the window those plants which have been raised for winter blooming. Remove dead leaves; and, as to exposure, guard only against frost. Bulbs intended for spring

blooming in windows should now be planted in pots; using very rich sandy soil, and placing the bulbs only deep enough that they may be covered in the mould. They should be placed in a warm situation, and covered with six inches deep of saw-dust, ashes, or sand.

NOVEMBER.—Prune and transplant trees and bushes, but only during dull, mild weather. Plant bulbs that remain out of the ground; protect fuschias if frost threaten; and take up dahlias in dry airy weather. Heavy land should be dug, and a layer of manure and sand turned in to mellow during winter. Choice flowering shrubs, of all sorts, should be procured and planted this month.

IN-DOORS—Keep plants free from dead leaves or mouldiness. If green moss appears on the surface of the soil, stir it with a stick, for mould and damp do more injury than frost. Water very sparingly, and only encourage the growth of such plants as are coming into bloom for the windows. Give air as often as possible, and re-pot any tender plants which remain in the beds.

DECEMBER.—Prepare the ground as it becomes vacant by a deep digging or trenching, but do not manure except on stiff land. Manure added now on light soil will be entirely washed away before spring. Get in any bulbs that have been neglected, and protect those already planted by a layer of saw-dust or ashes. In dry weather lightly fork the surfaces of plots and borders, and scatter light

manure round the roots of shrubs and tender plants to protect them from frost.

IN-DOORS—Keep back as much as possible the plants which were re-potted early, but give them plenty of light and air as often as possible. Plants that have bloomed in drawing-rooms should be removed when quite dry. This is a good season to make alterations in the house, and to fit up shelves and flower-stands; the plants require but little attention, affording leisure for other operations.



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